

The Land Revenue of
Bombay vol. - 2

A. Rogers

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7. *Pál*, or *sut*, was rent-free land thrown into a large holding to make up for some disadvantage the holding suffered under. This was somewhat similar to *veta* in Gujarát.

8. *Gahán*, equivalent to *girínia* in Gujarát, was land held under various terms of mortgage, mostly alienated for village purposes.

9. *Pálnuk*, rent-free land held by certain classes, such as hereditary district officers and Brahmins. The exemption extended in some instances only to the payment of fees to village servants. These exemptions were similar to those enjoyed by Pándharpeshas in the Konkan, and were confined to the *M*^{ic}_{ai} petty division of the *Haveli* subdivision. The continuance, *Kh*^{le}_{le} privilege is now restricted to holders in lineal descent from the original holders.

There can be no doubt that the holders of *mirás* land were the successors of the original holders of villages in coparceny, who, under the term of *Jathádars* (holders of *jathis* or shares of villages), were answerable jointly and severally for the payment of the State revenues. The system, still preserved in Gujarát in the *bhágdári* and *narvúdári* villages, had disappeared under the disintegrating effects of the Mahratta, or perhaps previous Mussulman, administration. In return for the privilege of paying as a general rule higher rents for their lands, *Mirásdars* had certain aristocratic privileges, such as presiding at village religious ceremonials.

In the early days of British rule much correspondence passed on the subject of the position and rights of *Mirásdars*; but as all ryots have now equal rights as occupants under the Survey tenure, one far more lasting and beneficial than the vague *mirás* tenure, the use of the term has gradually become obsolete, although socially the descendants of *Mirásdars* may still enjoy some slight special consideration. Their numbers, as compared with those of ordinary tenants, varied in different parts of the country, the proportion in Púná having been thirteen to one, and in Bhimthadi nine to ten.

Important members of the village communities, and affecting the revenue administration a good deal, inasmuch as the perquisites and fees due to them by almost all classes were considerable, were what were termed the *Bárahbalutadars*, or twelve holders of *balute*, in addition to the headman or village accountant (*pátel* or *am*

kulkarni), entitled to the payment of *baluta* or fees. These were the carpenter, the blacksmith, the washerman, the barber, the potter, the silversmith or assayer, the idol-dresser, the water-carrier, the currier, the rope-maker, the man who combined the offices of watchman, public messenger, and guardian of boundaries, and the Mahomedan *mulla* or priest. In addition to these there was generally a Brahmin, to attend to religious ceremonies, and occasionally a village watch of Bhils or Rámosis. The services rendered by each of these may be sufficiently understood from their designations. They were rendered to the State only by the assayer and mes (mahár), and the headman and village accountant. Over subdivisions and districts there were the hereditary revenue superintendents (*deshmukh*) and accountants (*desh-pándi*). These were formerly paid by a per-centage of the revenue and by fees and perquisites from villages, and as the depositaries of information on all matters connected with revenue administration were, in the early days of British rule, indispensable.

As the full details, however, became gradually known, in the first instance by the preparation of field registers and records of individual holdings, and subsequently by the measurement, classification of soils, and assessment of the Revenue Survey, such services were no longer required, and have been finally dispensed with by settlements, into the particulars of which it is unnecessary to go, which have secured a certain portion of the old emoluments to the State, and left the rest to be enjoyed by the descendants of the officers as private property.

The revenue was partly levied by direct assessment on the land and partly by personal cesses on the cultivators. Except in some villages, where each class of land had a separate rate supposed to have been fixed by Malik Ambar (1600 to 1626), Mirásdars paid a uniform rate, adjusted by varying the size of the *bigha* according to the quality of the land. In some villages lump assessments were paid on blocks of land (*mund*), while in others each field in a *mund* had its own rent. In the hilly country in the west the rent was fixed by an annual *páhání*, or eye-estimate, of the out-turn of crops, the Government share of which, varying with different crops, was commuted to a money payment. In addition to these rents the personal cesses levied were estimated by Captain

Robertson to represent about 1½ per cent. of the produce. Of the cesses, some of the most unjust or harmful were abolished, but about twenty-four, among which were the following, were retained:—A grain cess (*galá patí*), originally imposed to supply grain for forts and the Government studs; a straw cess, a butter cess, a grass cess, a firewood cess, oil cess, messenger cess, &c., &c. These were evidently original taxes in kind, levied for the use of Government officers or forces, converted into money payments.

Púna was the only large town in the district, but there were a good many others, such as Chákan, Jejuri, Khed, Pábal, Sásvar, and Talegáon, which had a good deal of trade. Púna had suffered from the change of Government in consequence of the cessation of the great and lavish expenditure of Bájiráo's Court.

The land and *sayer* (miscellaneous) revenue in 1821 was Rs. 13,51,422, in addition to which Rs. 2,36,237 were derived from customs, and Rs. 25,931 from farms and town taxes. The cost of collection, exclusive of salaries to Europeans, was Rs. 93,666, or about 7 per cent. on the revenue. The annual settlements were made by the Collector on papers prepared by the village and district officers as long as only a village settlement was attempted. When the detailed settlement with individual ryots was commenced, much of the work necessarily devolved on the Mámlatdárs of subdivisions. The Collector and his establishment having in the first instance determined the gross amount each village had to pay, the Mámlatdár inquired into and fixed the share of this that each landholder should contribute; but as in this system there was no check on the Mámlatdár to prevent collusion between him and the headman in unfairly distributing the individual payments, it was arranged from 1821–22 that each holder should receive a writing (*patá*) stating the payment due by him, and pass an agreement to pay it. This system greatly reduced the power and the emoluments of the village officers, as it relieved them of many of their duties. The Mámlatdár, in the distribution of these payments, had to be guided chiefly by the *jamin jháda*, a document professing to show the cultivation of each plot of land in the village, which had to be carefully checked. Arrangements were also made so that no instalment of revenue should be payable until the crop out of the proceeds of which it was supposed

to be met had been reaped; not to demand security for payment except such as was provided by all the ryots of a village becoming mutually responsible for each other (this was as a rule a merely nominal proceeding); and to ensure receipts being given for all payments made. In this way, by granting cash advances to assist ryots in their cultivation, by not unduly pressing for the payment of the revenue by distraint of property, and by other means, every endeavour was made to improve the condition of the agricultural classes. In consequence of these measures, and notwithstanding the continued fall of prices that took place about this time, an increase of about 80,000 *bighas* in cultivation, and of about Rs. 80,000 in revenue, was brought about in two years. But the continued fall in the price of grain caused a good deal of local distress and discontent. The monsoon of 1823-24, moreover, proved a failure, and the revenue, which had been Rs. 10,37,880 in the previous year, fell to Rs. 7,30,910. The next year, 1824-25, was even worse: rain almost entirely failed. Little drinking-water, even, was left, and cattle died in large numbers, so that people began to desert the country. The Commissioner in the Deccan, Mr. Chaplin, and the Collector, Capt. Robertson, differed as to whether over-assessment had anything to do with the condition of the people, the latter maintaining that, apart from the failure of rain, the chief cause of distress was the cessation of the old Court expenditure and the closing of the large numbers of openings for employment connected with the Court and the army in the Peshvá's time. The collections of land revenue, notwithstanding the leniency shown to the ryots in their distressful circumstances, were in three years as follows:—

1825-26	.	.	.	Rs. 6,08,600.
1826-27	.	.	.	Rs. 9,00,650.
1827-28	.	.	.	Rs. 12,55,620.

The recovery from the bad effects of the season of 1824-25 was thus extremely slow, and it had become evident that a radical change in the system of assessment, preceded by a detailed survey, was necessary to put matters to rights. Mr. Pringle, Assistant Collector of Púna, was accordingly appointed, in 1825, to carry out such a measure in the Collectorate. Having completed the mea-

surement of the subdivisions of Sivner (Junnar), Pábal, and Indápur, Mr. Pringle, in 1828, reported to the following effect:—

The principle of a share in the gross produce (to be levied by the State), laid down both in the Institutes of Manu and the Hedaya, was carried out by Acbar's minister, Todar Mull, in Hindustan (1560–1600), and by Malik Ambar in the Deccan (1600–26), and it was also that adopted in the Ceded Districts of Madras by Sir T. Munro, who was of opinion that the exaction of one-third of the gross produce by Government would be sufficiently moderate to enable every landholder to derive a rent from the land he cultivated. The proportion, however, which could be exacted without absorbing the whole of the rent must vary with the numbers, wealth, and skill of the people. It was not unlikely that at the time at which Sir T. Munro wrote two-thirds of the gross produce might have left a rent to the holders of land. It might do so when the net produce equalled half of the gross produce, but would exclude from cultivation land the net produce of which only amounted to one-fifth of the gross. Accordingly he considered that the net produce of land after payment of all expenses was the only fair measure of the power of the land to pay assessment. That surplus must vary in relation to the gross produce in different soils, and therefore any tax proportioned to the gross produce must be unequal to the extent of such variation.

This inequality, by creating an artificial monopoly in favour of the best soils, which yield the greatest net produce, must tend to restrict the extension of cultivation to less favourably circumstanced lands, and check production, and would thus take more from the body of the people than it would bring into the treasury. The net produce being, then, the only accurate standard of valuation, in proportion as the assessment is regulated by it would the burden be distributed in the manner most favourable to the general wealth and prosperity of the country. The net produce should therefore be the recognized basis of operations, whatever might be the difficulty of ascertaining it. Mr. Pringle's object had accordingly been to class all soils as nearly as possible according to their net produce: that is, that portion of the whole money value of the average gross produce, estimated at an average price, which remained after deducting all outgoings on account of labour

and capital, each item of these being calculated at its ordinary and average rate.

* The agency by which all this had to be ascertained was not altogether satisfactory, as the assessors were Brahmins unacquainted with agriculture. The opinions of the ryots themselves on such points were of little use, but the information drawn from them by the address of the assessors was very profitable. Mr. Pringle's method of classification was to arrange the soils in classes varying with the soil in each village, there being seldom more than nine classes in dry-crop and three or four in garden and rice lands. When there were more than one class in a field, the average was taken. This was done by the advice and with the assistance of the ryots, whose local knowledge made them the best judges of the capabilities of the soils, while the assessor availed himself of the opposite interests of the holders and of his experience in other villages to guard against unfairness or inequality.

The classification being completed, the assessor proceeded to observe and record accurately the distinguishing characteristics of each class. Then he determined, from the evidence of the most experienced and intelligent ryots, the nature of the crops usually grown in each class, the most approved course of rotation, the average amount of produce in ordinary years, and the several items of expenditure incurred according to the usual system of cultivation adopted by ryots in middling circumstances, from the time of ploughing to that of selling the produce. In tracing the details of each of these no circumstance, however trivial, likely to contribute to the accuracy of the result was omitted. The evidence as to produce was verified by actual experiments on crops in different classes of soil, and by comparison with similar experiments in other villages. This grain produce was converted into money at the average of twenty year's prices taken from grain-dealers' books, either in the village or in the nearest market, and if the latter was at any considerable distance an allowance was made for cost of transport.

In fixing these averages care was taken to procure them for all the villages for the same years and months, and to see that the same weights and measures were used. In computing the

expense of cultivation the number of bullocks required for a plough in each description of soil in a given quantity of land was ascertained by an estimate of their daily work, and the annual charge per acre on this account was calculated with reference to the cost of their food, their ordinary purchase price in the neighbouring markets and a fair interest on such cost, the numbers of years for which they generally lasted, and insurance against casualties. The cost of manual labour per acre was in like manner determined by the number of hands required to cultivate a given quantity of land, and their wages at the current village rates in cases where hired labourers had to be employed. The cost of seed and manure, of implements, fees to artificers and village officers, sacrifices and offerings, and every item of labour or stock that could possibly form a charge on produce before it was taken to market, with interest at the rate customary, on tolerable security, on all advances from which a return was not immediate, were all calculated, and a fair allowance made for insurance in all cases of risk. These particulars, with the authority for them, were recorded for every description of soil, and the difference between the money value of the gross produce and the expense of cultivation thus estimated formed in each case the standard by which its power of paying assessment might be brought into comparison with that of any other description in any other part of the country.

The relative values of soils being thus fixed, the next process, that of fixing the positive assessment on each kind of soil, was determined by the amount of past collections, the area according to local measures being converted into acres where accounts had been regularly kept, and where not, by an approximate estimate. For this purpose it was assumed that preference in cultivation is generally given to the best classes of soils; and the average number of *bighas* per acre in each class having been ascertained by the Survey, the number of *bighas* recorded as cultivated in each year was converted into acres in that proportion, commencing with the highest class and descending successively through the others until the whole recorded area was accounted for. All cesses and fees, except those of Balotedars already allowed for in the calculation of expenditure, were included in the assessment. No

allowance was made for remissions on account of individual poverty, and detached cases of lands held on *káol* leases were not taken into account.

The area and assessment having been ascertained, the quality of the land had to be considered, a matter that had been overlooked in former surveys. It was obvious that a rate levied from cultivated land only, which was presumably the best, if applied indiscriminately to all land, would be too high. To avoid this, the cultivated area of each year was arranged in the classes fixed by the Survey by ascertaining, where possible, the fields that had been actually cultivated, and, where it was not possible, by assuming preference in cultivation to have been given to each superior class in succession. The whole land thus reduced was then brought to the standard of the first class by allowing a deduction in the nominal number of acres in each class in proportion to the deficiency in its net produce. Thus, if there were twenty acres of the second class, and the proportion of net produce per acre in that class was to that of the first as one to two, they would be taken as ten acres. The number of cultivated acres in each year being thus estimated in land of the best quality, the sum, divided by the recorded area of cultivation in any year, would give for that year the rate per acre in such land, and the average of these rates for the whole number of years of which accounts were procurable would give the rate of assessment on the best land of each village as fixed from past collections. This being adjusted to each of the inferior classes in the proportion of its net produce would give accurately the rate for those classes with reference to the same data. All these calculations completed, the general register of lands and tenures was then made out. The effect of these operations would, in Mr. Pringle's opinion, evidently be to distribute over the whole land of each village, in proportion to its net produce, the average amount of its ascertained payments in past times.

The assessors having completed their part of the business, their work came under the inspection of the Head Assessor, who compared that of each with that of other assessors elsewhere. The classification was inspected, and the complaints of the ryots heard; the estimates of the assessors were closely scrutinized, all

particulars recorded, and apparent inaccuracies or errors traced to their sources. If satisfactory, the work was then confirmed by the Head Assessor, who, when the returns of all had been compared, combined them and generalized for the purpose of equalizing the rates of assessment in different villages. He distributed among these, according to the proportion of their net produce, the total average amount realised from the whole. This was effected by calculating the value of net produce and assessment of all lands in the district at the rates fixed by the assessors for the separate villages, when the former of these sums divided by the latter would give the average proportion of the assessment to the net produce in the whole district. This being applied to each class of land in every village, determined the accurate rate of assessment for that class with reference to the rest of the land in the same district and the payments of the whole in past times.

All this was revised carefully in similar detail in Mr. Pringle's office. The general principles that had been followed were inquired into: the information collected was compared with facts observed and recorded elsewhere under similar circumstances. The value of the evidence, authenticity of accounts, and reasons for the several operations were weighed and considered; the complaints of ryots were heard and investigated, and, where practicable, fields themselves inspected, and errors discovered in the course of the inquiry corrected. The proportion of the rate of assessment to the net produce was then compared with that in other districts, the opinions of hereditary officers and others invited, and, on a consideration of all the circumstances, the rates of settlement proposed by the Head Assessor were revised or confirmed or lowered. In such cases increases or decreases were made out by a per-centage in all the rates. Mr. Pringle admitted that the prosecution of the settlement on this basis would involve a degree of detail that would seriously impede its progress, but he was satisfied that no step could be abridged without sacrificing a proportionate degree of accuracy. Allowing that the detailed nature of the investigation would preclude a strict inquiry into minutiae on the part of the supervising officers, he held that occasional examination into the reasons given for proposals would

keep a check on subordinates, especially as they had to record the grounds on which they based all their proceedings. It would save much time and trouble if rates were accepted unsupported by anything but his own idea of their suitability, but he thought he would fail in his duty if he did not explain, step by step, his reasons for all his proposals. His general idea was to place all lands exactly in the same relative positions they would hold if there were no assessment, that is, so as to admit of their yielding a rent to the owners progressively increasing in amount from the worst to the best soils, according to quality. The positive value of the rent would of course depend on the moderation of the share of the net produce that Government under the exigencies of the circumstances would be content with. This would be as large as it could be consistently with the payment of revenue and preserving in full vigour the resources of the country. If the whole net produce were taken, the productive energies of the country might remain unimpaired; but there would be no rent, and therefore no property in the soil. If land were assessed in an increasing ratio to its net produce, the same effect would be produced, though in a less degree. If assessment was imposed in any other proportion than that of the net produce of land, rent would increase, possibly in some lands to a higher amount than it could have attained to if there had been no assessment; but an unprofitable direction would be given to cultivation, and the resources of the country would be kept below their natural level. By proportioning the assessment to the net produce, and keeping the estimate of that proportion moderate, the productive powers of the country would be preserved unimpaired, and at the same time the desirable object of giving a saleable value to landed property would be attained. It was true that, however accurately the assessment might be proportioned to the net produce at first, it would no longer preserve that character when the increase or decline of population, capital, and agricultural skill might have produced a change in existing relations. In the former case it would bear unequally on the best, and in the latter on the worst lands; but this was inseparable from the nature of rent, and could not be avoided under any other system.

The measure of assessment fixed by the Head-Assessor on the

data furnished by the assessors was 61.75 of the net produce, applied indiscriminately to all classes of land in all villages. It was found that the general result was to reduce the assessments of the better lands and increase those of inferior lands, which was probably to be traced to the *ukti* and *sosti* systems (explained above), in heavily assessing the former, and letting off the latter cheaply. But whatever the cause of this, it was evident that the old assessments were not founded on any proportion of the gross produce, as that would have led to a contrary result.

On these principles Mr. Pringle was permitted to revise the settlements of several subdivisions. The system followed by him has been explained in full detail in his own words, lest there should be any doubt about the description, as Mr. Pringle is still alive, and it would otherwise be hard to apply to it the term of utter impracticability which the exigencies of history necessitate. The theory that assessment can be more correctly based on the net than on the gross produce of land is, of course, true, as the cost of raising an equal amount of produce on lands of various qualities and differently situated must vary considerably; but it is difficult to imagine how anything but a reliance on the magic power of figures could have led an able man to conceive that he could evolve a system that would establish the true relative values of lands to each other out of returns of their actual out-turn supplied by interested parties, however much checked by experiments on crops and in other ways, put together for calculation by non-agriculturists. The result, which will be noticed hereafter, was that the whole of the operations were pronounced untrustworthy, and the measurements, as well as the assessments founded on them, were in most cases cancelled.

The first subdivisions settled on the principles proposed by Mr. Pringle were Sivner (now Junnar) and Pábal. In the western valley (*khosi*) of Madh the inhabitants were chiefly Kolis, people always ready on trifling pretexts to revert to their old habits of plundering. As the adoption of new rates according to the proportion given above would have more than doubled the assessments of these people, it was thought advisable, although the quality of the soil would have justified the increase, to make a reduction of 20 per cent. in the rates. In the two subdivisions, as

a whole, the total assessment fixed by the Head Assessor on the basis of former payments was Rs. 4,79,804. This was reduced, on general considerations, to Rs. 4,12,752, being in the proportion of 54·03125 of the estimated net produce. This assessment exceeded the *tankhú*, or total, of Malik Ambar's settlement by Rs. 58,430, but was Rs. 61,190 below the average of past collections.

The next subdivision settled was Indápur. It had, at the commencement of British rule, been placed under the Collector of Ahmadnagar, and its settlement made, as in Junnar and Pábal, by imposing the full *tankhú*, as shown in the revenue records; this was, however, to be reached only by gradual enhancements. For three years, as the rates were moderate, prices high, and crops good, Indápur flourished; but from a fall in prices in 1822-23 and the almost complete failure of the rains in 1823-24, the condition of the people was greatly impoverished.

In 1826 the Collector of Púna, to which district it had been transferred, tried to restore the country by granting village leases for five years at rentals increasing to 25 per cent. beyond Malik Ambar's *tankhú*. Many of the villages refused these moderate terms, and those who accepted them failed in their engagements in 1826-27. As this plan had failed, the land was let on *akti*, or short terms, as people were willing to accept them.

Mr. Pringle found the country in a wretched, half-deserted state. The materials on which to base a revision were very scanty. Many of the ryots had left, and of those who were present many were merely *ujri*, or casual cultivators, who took no interest in the proceedings. The general proportions of past collections to net produce fixed by the Head Assessor was 25 per cent. This low rate was traceable to the accounts procurable, all relating to the late unfavourable years, including several in which land had been let out on low rentals. Sufficient allowance did not appear to have been made for the uncertainty of the rainfall in this tract of country, but even taking this into consideration, Mr. Pringle thought it right to raise the Head Assessor's proposed settlement by $12\frac{1}{2}$ per cent., making the Government demand up to $28\frac{1}{2}$ per cent. of the estimated net produce. Due allowance being made for the precarious rainfall, this would probably be equal to

45 per cent., or 9 per cent. less than the proportion fixed in Junnar and Pábal.

All but one village seemed satisfied with the settlement, and in this, after actual inspection, the Head Assessor's rates were confirmed. This total settlement, which came to Rs. 1,75,320, was raised to Rs. 1,97,232, and, with the well assessment of Rs. 4,130, came to Rs. 2,01,362; this was Rs. 59,869 more than the *tankhá*, Rs. 40,495 less than the Mahratta total assessment (*kamál*), and Rs. 20,680 in excess of average past collections. It included alienated as well as Government land. On the latter alone the assessment was increased by $76\frac{1}{2}$ per cent., but this was not considered of any importance when the low rates at which the land had been let at the time of the settlement were taken into account. Great changes in the assessments on individual holdings and villages no doubt took place, owing to the irregularity of former assessments, but Mr. Pringle was of opinion that even Mirásdars had no right to complain of an increase, as no title to exemption was conveyed to them either in the public records or by old title-deeds. They were, indeed, generally assessed more highly than other tenants under Native rule, whereas in Junnar and Pábal the payments were on the whole reduced by about 25 per cent.

In addition to Junnar, Pábal, and Indápur, Mr. Pringle's settlements were introduced into the subdivisions of Bhimthadi, Purandhar, and Khed between 1829 and 1831, and into those of Haveli, Mával and Mohol (now in Sholápur) in 1830-31; but in practice the new rates were never actually enforced. The nominal increases of assessment were in Bhimthadi $13\frac{1}{2}$ per cent., and in Purandhar $33\frac{1}{8}$ per cent.; whilst in Khed the new rates caused a reduction of $27\frac{1}{2}$ per cent. Owing to the failure of rain in 1829-30 large remissions had to be given, and balances due were allowed to remain outstanding. In 1830 and 1832 there were again failures of rain, and it being evident that his rates could not be collected, Mr. Pringle himself, in 1831, proposed that they should be lowered by one-third. The Revenue Commissioner, on being referred to by Government, considered that a mere reduction of rates would be insufficient. As there were strong grounds for doubting the accuracy of the measurements, as well as the

other operations of Mr. Pringle's settlement, owing to suspicions of the dishonesty of his subordinates, whom the intricacy of his inquiries had prevented Mr. Pringle from efficiently superintending, he proposed that a special inquiry should be made into the whole matter. The Collector reported that the work was so full of inaccuracies and frauds that it could not safely be made the basis of fresh assessments. Numerous cases of fraud were discovered, and some of Mr. Pringle's subordinates were convicted on criminal charges and punished. A special officer was appointed to make detailed inquiries, and Government finally came unwillingly to the conclusion that the whole of Mr. Pringle's survey and assessment must be set aside. Being satisfied that they could not be made the basis of any revision, they directed that the whole operation should be commenced *de novo*.

This was the commencement of the now well-known Bombay Revenue Survey and Assessment. It was decided that under the general superintendence and direction of the Revenue Commissioner the work in each subdivision or Táluka should be carried out by the Collector or his assistant in charge of it, aided either by an Engineer or other competent military officer. Various officers were appointed, the chief of whom were Lieut. (subsequently Sir G.) Wingate and Mr. Goldsmid, of the Civil Service, who were to survey Mohol and Mádha. Indápur was to be surveyed under Lieut. Nash on the same system as that adopted in Mohol and Mádha. Bhimthadi, Purandhar, Khed, Mával, Junuar, Pábal, Sholápur, Bársí, and Haveli, were all to be undertaken by different officers on a uniform system.

Two important revenue reforms were introduced about this time; one the appointment of Mahálkaris in charge of portions of subdivisions to relieve the Mámlatdárs, and the other the abolition of transit duties, which the Collector, Lieut. Wingate, and other authorities believed to be one of the chief causes of the ryots' poverty.

The frauds and oppression exercised by village and inferior Government officers under Mr. Pringle's system having been put a stop to, Indápur had somewhat recovered, and it was under rather more favourable circumstances that Messrs. Goldamid and Wingate introduced their new system in 1837. into the petty

division of Kalas. Mr. Pringle's measurements were adopted in all villages in which the error on examination proved to be less than 10 per cent., but in all cases in which it was greater the whole village was re-measured. The whole of the old classification of soils was rejected. The soils were then arranged in three groups, black, red, and yellow, according to the colour of them, each group containing three subdivisions. These nine grades were valued relatively according to the following scale :—

Reas (each $\frac{1}{160}$ of a Rupee).				
First black	.	.	.	300
Second black	.	.	.	240
Third black	.	.	.	175
First red	.	.	.	230
Second red	.	.	.	130
Third red	.	.	.	60
First yellow	.	.	.	100
Second yellow	.	.	.	60
Third yellow	.	.	.	35

The classers, in classing the soil, were bound to look to its intrinsic quality alone, by digging in several places in each field to ascertain the depth of earth, and assigning a lower value for shallowness, and for such other visible faults as an excessive quantity of stones, sand, lime, &c., too sloping a surface, or want of proper natural drainage. Other points, such as distance of fields from the village site or water, were not to affect the classification, and were merely to be noted for the consideration of the assessing officer. Where the soil in any field came under several classes, the area under each was to be estimated and an average struck. In the classification of garden lands under wells it was found impossible to estimate the comparative values of the lands without ascertaining the quantity and permanency of the supply of water in the wells. It was then attempted to divide the lands into classes, but the operation was found to be so complex, from its depending on so many different circumstances, that the attempt was abandoned, and an assessment fixed on each garden. Each well had a nominal number of acres assigned to it, assessed at Rs. 2 each. The highest assessment, inclusive of dry-crop rate, placed

on the land watered by one water-bag was Rs. 10. The assessment was on the entire garden, and the determination of the different shares to be paid by the partners in it was left to the people themselves, so as to prevent the interference of native officials.

At this early stage of the Survey operations the system of dividing each tract of country into groups of villages for maximum rates of assessment according to climate and market facilities does not appear to have been adopted. The maximum rate for the whole subdivision was 300 reas or 12 annas for the first black, which was intrinsically the best soil; and other inferior lands were assessed according to the proportion in reas given above. The general result of the revision in the $73\frac{1}{2}$ villages first settled was to reduce the rental from Rs. 99,030 in 1836-37 to Rs. 72,790 in 1837-38, or 26 per cent.

In 1838-39 the Survey settlement was introduced into the Kurkumb petty division in Bhimthadi, which was contiguous to Indápur. The petty division was similar in its climate and other respects to Indápur, but the Pimpalgáon division in the west had a much more certain and abundant rainfall. Kurkumb was in a very depressed condition, owing to the ravages of cholera and other causes. More than half the arable land was waste, the villages were ruined, constant remissions were required, and outstanding balances accumulated. The circumstances being very similar to those of Indápur in all respects save that of nearness to the market of Púna, the same rates of assessment were adopted with an addition of 10 per cent. on the latter account.

In 1840 the Collector reported that where the new Survey rates had been introduced nearly all the land had been taken up, and in Kurkumb there was an increase of 14,537 acres.

In 1839-40 the larger division of Bhimthadi, Pimpalgáon, was revised. This had gone through the same trials as Kurkumb, and the people were but little better off than those in the latter. On the other hand, the rainfall was better, and enabled *bájri*, a higher-priced grain than *javári*, to be produced. It had also the advantage of being nearer to good markets than Indápur. Accordingly the maximum rate was fixed at 15a. in place of 12a., an increase of 25 per cent., which gave an average rate of 7a. 10p. the acre on dry-crop lands. This was raised between 4 and 5 per

cent. by Lieut. Wingate. The average in Indápur had been 5a. 11p., and in Kurkumb 6a. 6p.

In 1841 the result of the revision in Indápur was favourably reported on. Population was increasing, the Government revenue had increased, remissions fallen, and the condition of the people had perceptibly improved, in consequence of the new rates. The use of carts in place of pack-bullocks had also become much more general.

A comparison between the acreage under cultivation in the two subdivisions in the last year of Mr. Pringle's settlement and the years 1840-41 and 1841-42 showed as follows.—

	Last Year of Old Settlement.	1840-41.	1841-42.
Indápur . .	140,387	223,170	720,144
Bhimthadi .	86,036	152,595	157,584

The spread of tillage had in fact been so rapid that the cultivation was superficial. This was also shown by the stock of cattle in the district not keeping pace with the increased area under the plough.

In revising, in 1838, the Survey reports on which the new system was sanctioned, Government approved of no attempt having been made to show what proportion of produce it was proposed to take as revenue. They thought it would be as well at once to drop this unattainable object, which seemed to elude inquiry. It was proper that the consideration of the extrinsic value of lands, as distinguished from the intrinsic value, to which alone the classers were to look in classifying the land, should be left for the consideration of the officer fixing the rates, who could give due weight to such points as facility for irrigation and procuring manure, vicinity of roads, markets, &c. The great principle to be observed was to fix the assessment so low that while it gave the State its fair dues, it should not encroach on the just share of produce which the agricultural classes should receive. The assessment on gardens was in reality a well-tax, but the area was so small that it was not of much importance. The principle of a higher assessment on such lands might be admitted as correct, but it was doubtful whether it would not be advisable to suspend the operation of the principle in order to encourage the sinking of new

wells and the preservation of old ones, objects of vital importance in such a district as Indápur. The country being considered by the local officers well able to bear the proposed rates, however, Government would not interfere to make any change; but, as the standard of future prices was uncertain, and this was a first experiment, would only guarantee the rates for ten years from 1838-39, and declared their intention to continue the settlement for a further period if the beneficial effects expected from it were found to have resulted. The rates had not been fixed on such perfect and decisive principles as to justify Government in limiting their demand to them under every change of circumstances to which the country could by any possibility be liable. Events have fully justified these pregnant words; for while the value of agricultural produce has on an average more than doubled, the introduction of railways and the opening up of the country by the construction of roads must tend to keep up the general standard. The rise of some and the fall of other markets has considerably changed, and still continues to change, the relative value of land in different parts of the country in such a manner as to necessitate the readjustment of the tax upon it. In addition to this, the fall in the value of silver and in the rates of exchange, coupled with the great development of the trade in Indian wheat, constitutes a circumstance bearing on the assessment of the land of the ultimate effect of which we have even yet no firm basis for forming a reliable judgment. The rates were subsequently guaranteed for thirty years.

In 1841 an order was issued by Government, on a proposal by the Revenue Commissioner, with regard to *dalerán*, or hill land, cultivated with *koitá*, or bill-hook, that 12a. per *koitá* might be levied in the Khed, Mával, and Sivner (Junnar) subdivisions, care being taken that the system should be confined to such lands as were not capable of continuous cultivation, and therefore could not be included in ryots' permanent holdings, or brought under the field settlement of the Survey. All that was capable of continuous cultivation was to be dealt with by the Survey and regularly assessed. In Haveli, Parandhar, and Pábal the practice appears to have been to levy an assessment of 6a. a *bigha* on annual inspection estimates of the area cultivated.

In 1841-42 settlements were introduced into the Pábal and Haveli subdivisions. With regard to the former, Lieut. Wingate reported that although the people were better off than in the rest of the Deccan, and many Mírásdars were still in existence, the country was far from prosperous. The villages were neglected, and cultivation was stationary at about 105,000 acres, about one-third of the arable land being still waste. Out of Mr. Pringle's dry-crop assegsment of Rs.1,55,000, there had been collected, during the twelve years (1829 to 1841) for which it had been in force, an average of only Rs.72,000. In the first three years of British rule the collections had been very heavy, averaging Rs.1,60,000. In the fourth year they fell to Rs.1,08,000, and thenceforward they had grown less and less. The early Coll ctors had drained the country of its agricultural wealth, and caused the distress and poverty into which the ryots had been plunged.

The measurements by Mr. Pringle's survey proved to be fairly correct, and were adopted. Remissions and outstanding balances had been heavier during the twelve years in which his rates were in force than in the previous nine years of British rule. The rainfall was fairly uniform, except in a few of the eastern villages, and about equal to that in Pimpalgáon. Its markets were at Púna and other places, as in Haveli. There was a good deal of garden land, both channel and well-watered, in the Ansari part of the subdivision. Out of 5,900 acres, 3,900 were under wells, 950 under channels, and 1,150 under the two combined, but lands irrigated from wells had hitherto not paid extra rates.

It was now proposed to apply to these lands the system adopted in the eastern districts, and to levy from one to three rupees per acre beyond the dry-crop rates, an exception being made to this in the case of one village which had almost a permanent supply from a dam thrown across the Mína river.

The proposals for the pitch of the dry-crop rate were various, those proposed by Lieut. Robertson being 33 per cent. above those of Indápur (as in Bhimthadi); those by the Assistant Superintendent, Capt. Landon, 68·3 per cent. higher than in Indápur; and those by Lieut. Wingate 10 per cent. below the latter, or 58·3 above those of Indápur. The last of these were approved by Government, and would raise the assessment by

about Rs. 20,000, or 26 per cent. above Rs. 77,000, the average collections of the twelve years ending with 1841, if all the arable land was brought under cultivation. This settlement included the Ansari or northern group in the subdivision, consisting of thirty-four villages. The measurements in some villages were found to vary from 17 to 52 per cent. in excess of the real area, and such villages were re-measured; in those where the variation was under 10 per cent. the measurements were adopted.

As this portion was nearer the hills, the rainfall was more certain than in the east, and the difference between the richer and poorer soils less marked than in the latter part of the country. The rainfall in a few villages in the north-west, which were surrounded by hills, was specially large and certain.

In 1820 the revenue had been Rs. 80,260, but by 1828 it had fallen to Rs. 44,870; under Mr. Pringle's settlement it fell in 1836 to Rs. 35,270, and since then it had fluctuated between Rs. 35,000 and Rs. 40,000, or less than half of what it had yielded in 1820. Out of 75,177 acres 55,970 were cultivated and 19,207 waste. It was thus evident that there was great need of reform in the assessment.

The Haveli subdivision was re-assessed in 1841. Being situated to the west of Bhimthadi, its rainfall was more certain than that of the latter. Near Púna the grazing-land was very valuable, and as there was a large demand for grass, grain, vegetables, and fruit in the city, the prices of agricultural produce were from 20 to 25 per cent. higher than in Bhimthadi. As the red soils in the east of the subdivision approached more nearly to the black, and became more suited for the raising of wheat and grain, a change was made in the classification scale, and the former had four instead of three classes given to them. From this time forward the distinctive names given in the scale to soils of different colours were done away with, and classification proceeded entirely according to the *anna* classes.

In the first twelve years of British rule the average nominal rental had been Rs. 1,25,000, and in the last ten° 1,07,760; in the former period the collections had averaged Rs. 74,000, and in the latter only Rs. 58,000. Some improvement had been brought about by the grant of leases with gradually increasing rentals,

but, notwithstanding these concessions, the subdivision was suffering from a high nominal assessment with constant remissions and balances. In the ten years subsequent to Mr. Pringle's settlement these had slightly increased, and the revenue considerably diminished, as shown above. The maximum dry-crop rate proposed was 550 reas, which, as compared with the 300 reas of Indápur, gave an increase of over 83 per cent. For rice land, of which the area was small, an extra assessment of Rs. 3 an acre beyond the dry-crop rate was proposed; and for garden land, as in Bhimthadi, rates varying from R. 1 to Rs. 3 extra. The general result was estimated to give a rental of Rs. 72,000 on dry-crop, and Rs. 5,000 on garden and rice land, or a total of Rs. 77,000; adding Rs. 15,000 (fees to village officers, &c.) to this, the total came to Rs. 92,000, or Rs. 9,000 beyond the average of ten years' collections. These proposals were sanctioned, and it was directed that in neither Bhimthadi nor Haveli was any land to be assigned for free pasturage, but that the right to graze on waste lands was to be sold field by field. Permission had been asked to allow the Survey officers to raise the proposed rates by 9 per cent for villages in the neighbourhood of Puna on account of the advantage of its market, and lower them for the distant villages by 5 per cent. In giving sanction to this, Government ruled that such increase or decrease must be considered experimental on account of the difficulty of the operation.

In 1841 a Report on the Survey system, comparing it with those in the North-West Provinces and Madras, prepared by Mr. Goldsmid and Lieut. Wingate, was submitted to Government. From this the following useful arguments and information may be gathered. It maintains that all the most important parts of the system in the North-West Provinces had been adopted in Bombay, and those only omitted which were impracticable from local considerations. The Court of Directors had objected that too much was left to the discretion of individual officers, and no fixed system as to the mode of settlement had been laid down. However much this might have been the case at first, the objection certainly no longer existed. As there was seldom any necessity for boundary surveys, as in the North-West, the scientific survey of boundaries and areas of every village,

which only served topographical and geographical purposes, was dispensed with. It was not required for revenue purposes, and it would add enormously to the expense to make it in addition to the field measurements, none of the cost of which it would save.

The objection of the Government of India to the same officers supervising measurement and classification of soils as well as the assessment, on the ground of their supposed tendency to fix the revenue demands too much on speculative and uncertain data, and consequently to over-assess, had been disproved in practice, as the revenue officers as a rule objected to the assessments being, if anything, too low. It was indispensable that the mechanical portion of the Survey operations should be under the general control of the settling officer. The result of the contrary system had been shown in the uselessness of what had been intended for a revenue survey in Gujarát in about 1820 for revenue purposes. In the North-West Provinces the actual measurements on which the settlement depended were made subsidiarily by establishments under the revenue officers themselves. The objections were really applicable to Sir T. Munro's Madras system, and not to that of the Deccan. At the point where the duties of a settlement officer in the North-West commenced, a mass of information had already been collected by the Bombay Survey officers in much greater detail than the former got together for their settlements. These details were, however, not so minute as to lead Government to doubt the accuracy of the work, as had been the case in Mr. Pringle's survey. They were only carried out with regard to measurement and classification of soils where they were absolutely necessary as a check on subordinates. The assessment was not based on speculative or uncertain data, but on the same documents as in the North-West, such as accounts of past realisations of revenue, &c. All reports on such matters were forwarded to Government through the Collectors and Revenue Commissioner, who had thus the opportunity of testing their accuracy by means of their own local knowledge and experience. One principal test was the contentment of the ryots, which was amply proved by their struggling for land that they could not even cultivate for several seasons, merely to secure the right of occupancy for them-

selves, thus proving that land had acquired a value which it did not possess before the settlement.

No estates were in any way created or disturbed in Bombay. Villages with known boundaries were taken as they stood. An accurate record was made of the extent, position, and capability of each field or number, and although there was no scientific definition of boundaries of villages, the maps showed the relative positions of fields, roads, rivers, village sites, &c., sufficiently for all practical purposes. These maps were much superior to the Khursh maps of the North-West. No portion of different estates being included in the same number, any apportionment of the rent or land-tax was unnecessary, and the system admitted of the freest transport of property either by judicial process or private agreement. Any extension of cultivation in Madras without a corresponding increase of payment was interdicted, as in Bombay; but so far from this acting as a check on cultivation in the latter, the fear was always lest cultivation should be extended too rapidly, and beyond the means of the people to keep up. The Bombay chain and cross-staff measurements of fields were checked by measurements with the theodolite by Europeans, and the average amount of error discovered in the former was under 2 per cent.; whereas in Madras the survey, unchecked by any scientific operations, was left to the honesty of the measurers.

In describing Munro's system of classification of soils and assessment the Board of Revenue remarked that, if made with tolerable accuracy, it would suffice for purposes of assessment where the property in the soil vested in the State, and not in individuals; but would be insufficient where proprietary rights were acknowledged, and a title to charge rents was never claimed by Government.

The Board had arrived at a mistaken conclusion on this important point. The proprietary right in land could only be destroyed by the imposition of an assessment so heavy as to absorb the whole of the rent. As long as the assessment fell short of the rent, a value was given to land equal to the difference between the two, which enabled the holder to sell the land. It was immaterial to inquire whether Sir T. Munro disregarded the rights of proprietors and recorded land in the names of actual

occupiers; but in Bombay, at all events, all existing rights were clearly recorded, so that the proprietor could do as he liked with his land. The Board stated that Sir T. Munro's classification had been vitiated by fraud, and was so minute that even honest men could not carry it out successfully.

This was avoided in Bombay by the land being divided from the commencement into certain classes, according to its estimated value. The ryots had a practical knowledge of the relative values of land, and such knowledge was easily acquired by native agency, whose operations were superintended by European officers. Each field was dug into in several places to ascertain the different qualities of soil in it, the quantities of the varieties being then estimated, so as to arrive at an average calculation; this was constantly tested by European officers in order to secure uniformity of classification. Such accuracy had been attained to in estimating the quantity under each description of soil that the error discovered seldom came to more than the difference between the values of two contiguous classes, a difference which was inconsiderable. The great practical test of accuracy in this respect was that of land being taken up after the settlement; and this had been found to be universally the case.

The Bombay method of assessment was essentially the same as in the N.W. Provinces. According to the Board's orders the condition of the agricultural classes, the state of particular villages, the amount of revenue realised, the prices of produce, and similar considerations as compared with the circumstances of previous years, should afford the chief grounds for determining whether the rental should be increased or lowered. This was precisely the Bombay system.

In the N.W. Provinces further modifications were permitted in the assessment of particular estates in order to accommodate present and previous settlements, and appeared to have been rendered necessary in consequence of marked differences in the industry and agricultural skill of the various proprietors and communities. The Board regretted the necessity for such modifications, and had endeavoured to equalize the Government demands as far as possible. In Bombay there were no such marked differences, and such modifications were happily unnecessary. It

may be here remarked that nothing was known of Gujarát to the writers of this Report, and it will be seen, in the course of this history that in some parts of that province modifications of this description were considered necessary by some revenue authorities, and have been adopted. No theoretical proportion of the true rent of different lands to be taken by Government had been assumed in Bombay, as it was found impossible to fix what the proportion should be: the abstract justice, however, of limiting the Government demand to from 60 to 80 per cent. of the true rent, as laid down by the Board, was admitted.

The grant of leases (*kaols*) was unnecessary to bring waste lands into cultivation under the Bombay Settlement; the cause of cultivation not extending in Madras was that the waste land was over-assessed. Cultivation in Bombay was extending without any adventitious encouragement. The Madras annual settlements were essentially the same as in Bombay, the complexity and detail observable in the former being due to over-assessment and the want of any uniform and simple system of accounts. The tours of *Mámlatdárs* to take engagements from ryots for the cultivation of the season were unnecessary and prejudicial. It was sufficient for Government to know what lands were in cultivation, and this could be ascertained by an annual inspection by the village officers, as in the Deccan, where only six or seven cases of concealed cultivation had been discovered. The Survey maps would in future prevent one piece of land being wrongly held in the place of another, and the accounts of individual ryots combined for the whole *Táluka* would give sufficient data for the annual settlement.

Six causes for the variation in the annual amounts in Madras were given by the Board. Of these only the following two were to be found in Bombay, viz., increase or decrease of cultivation, and remissions on account of failure of crops or poverty of cultivators. The former was unavoidable, as the ryots were at liberty to expand or contract their holdings; and the latter, though inseparable from all systems, was at a minimum in that of Bombay. Balances outstanding under it were inconsiderable, and land had acquired a saleable value. The use of informers, as in Madras, was inadvisable, as it tended to demoralize the people. Fluctu-

ating demands also gave opportunities for speculation, which did not occur in Bombay, where the fixed field assessments rendered each ryot independent and secure from over-taxation. The safeguards in the N.W. Provinces were not so great, owing to the larger areas on which assessment was imposed. The variety and complexity of interests among proprietors and sub-proprietors also were so great as to give opportunities for the richer to oppress the poorer holders, which appeared to be proved by the vast numbers of cases brought before the Courts for adjudication. Mr. Thomason had acknowledged that when a pushing man once got a footing in a village, he would soon bring the interests of all other proprietors to sale and himself buy them up. The system of joint responsibility, moreover, was unfavourable to individual industry and improvement. The existence of proprietary rights in the soil in Madras had been denied, and it would probably have asserted itself if it had existed. Joint proprietorships could only be brought into existence from the force of peculiar local circumstances, as there was always a natural tendency to separation of interests and independence. Agreements to pay revenue jointly were not improbable, but joint proprietorship in land was unnatural. It had never existed in the Deccan, where each field in a *thal* or *thikú* (separate well-known shares) had its own name and distinct owner.

With regard to the remarks of the Revenue Board on the evils of the *rayatvúri* system, those evils were due not to the system itself, but to over-assessment; and the superiority of that of the N.W. Provinces was owing to the moderation of the assessment. In Coimbatore (Madras) the average annual assessment was about one-third below the maximum demand, and in Kanara, in the Fusli year 1243, out of 51,969 *vargs*, or holdings, only 31,825 paid the maximum assessment, and in 20,164 temporary or permanent reductions were allowed. It was vain to hope, under such a system, that the ryots would attain to the standard assessment, and thus reach the limit of the demands of Government. The N.W. Provinces had the advantage of a moderate assessment in a productive soil. In Madras long years of previous misrule had impoverished the country before the *rayatvúri* settlement was introduced, and the rates under this were unfortunately so heavy as

to lead to the necessity for annual remissions with all their attendant evils.

The Revenue Board in the North-West drew a pleasing picture of the anticipated results of the village system, where families would be re-united by the closest bonds of concord and sympathy; where the poor would be supported by the rich, and widows and orphans encouraged to look for protection to their natural supporters. No such results were looked for in Bombay, but it was hoped that the settlements would confer real and substantial benefits on the people, and at the same time augment the resources of the State.

The N.W. Provinces village system was quite unsuited to the Deccan, as there were no proprietors to deal with. Whether the Khusreh survey and maps were accurate was not known; but ascertaining the whole area by a scientific survey, with village boundaries laid down for geographical purposes, provided no check against wrong measurements of fields. Such a survey, if considered necessary, would have to be done by a separate agency. The classification of soils in use in the N.W. Provinces was much too general and cursory to be applicable to a field assessment. Only three classes of soil were to be distinguished, and great importance was attached to the circumstance of land being irrigable or not, as well as to the description of crop grown in it. Evidence of wrong entries through bribery of Amíns was given in the correspondence quoted by the Board itself, and it was acknowledged in Mr. Muir's Report that the classification of soils had little to do with the grounds of assessment, which was based on a general classification of villages. The system of settling by villages led to collusion between proprietors and the Amíns to conceal the area of cultivation, and to wrong entries of quality, such as dry-crop for garden land. This was impossible under the Bombay system. The Khusreh survey was declared by some to be most valuable, and by others to be perfectly useless. As to the Record of Rights, however accurate it might be at the time of its compilation, what provision was made for the thousands of changes that must constantly take place? The apportionment of payments being left to the ryots, the boundaries of the survey would be disregarded, and this would probably in the end lead to a minute

interference with individual rights through the agency of the Civil Courts.

The assumption by Mr. Colvin, of the N.W. Provinces, that the Bombay assessment was based on estimates of produce was entirely unwarranted. Each measurer had a field-book, with every page in it numbered and signed, in which no erasures were permitted, but merely lines drawn through any mistake in entering that might be made, so as to show the original and the correction together. Each day the names of village officers and others present were entered, with a view to fix the responsibility for entries made. The measurer began his first number near the village entrance. The number of the field in the village accounts, with every particular as to occupancy, tenure, &c., was recorded, and a rough sketch of the field drawn. He then chained round the boundary, and measured the number with a chain and cross-staff by dividing it into triangles. This done, he passed on to the next number, and the one beyond, and so on till the whole village was complete. Each number was accurately plotted at home from the measurements taken, and transferred by tracing-paper to the general village map. Assisted by the position of the village site and roads being fixed by theodolite or compass to make the fields close in in the map, a sufficient degree of accuracy was attained for all practical purposes. Both measurement and classification of soils were thoroughly tested by European officers as they proceeded.

Such is a brief *résumé* of the arguments in favour of the *rayat-vári* system carried out on the principles of the Bombay Revenue Survey, as compared with that in Madras and with the village settlement system in the N.W. Provinces. This was written in the early days of the system, which has been greatly improved upon subsequently in the matter of scientific accuracy, with regard to which fault was found as compared with the technical superiority of the professional boundary survey of the N. W. Provinces. With a view to the village maps not being dependent for accuracy entirely on the fitting-in of one field upon another until the whole village space is filled in, one or two straight lines are now measured across the lands of each village from boundary to boundary, as nearly mathematically accurately as possible, as a guide by which

the measurers may fit in their fields; so that, in addition to being all that can be required for revenue purposes (the boundary marks even being laid down in each field in them), the maps are quite sufficiently exact for topographical purposes.

The method of classification of soils has already been described, and that of assessment will be readily understood from the detailed notices of the manner in which it has been carried out in different subdivisions described in these pages. The success of the system will be seen in the eagerness with which people took up waste lands under it, and the consequent immediate increase of the land revenue. So great was the eagerness to take up land that orders had to be issued to restrict the making of advances from the Treasury, where they were required merely for an extension of cultivation, and not for permanent improvements or other agricultural purposes.

Another method adopted to check undue extension of cultivation beyond the means of the ryots was to refuse remissions in case of failure of crops, with a view to weed out people who from want of agricultural stock and capital should be labourers, and not attempt independent farming.

In 1843 the new settlement was introduced into the Súpá portion of the Purandhar subdivision. It applied to 39½ villages, of which twenty-five were re-measured, twelve tested, and the remainder, which had lately lapsed, surveyed for the first time. They lay west of Indápur and south of Bhimthadi. The northern and some of the western and central villages were hilly, and the rainfall was somewhat uncertain, as in Indápur. They did not benefit much by the Púna market, but had those of Sásvad (Sassoor) and Bhor. Mr. Pringle's settlement had been unsuccessful, the collections having fallen from Rs. 47,547 on its introduction to Rs. 20,163 in 1835-36, when an imperfect revision was carried out by Captain Shortrede; the average from 1835 to 1842 had been Rs. 28,269.

During the last two years, 1840-41 and 1841-42, the remissions found necessary exceeded the collections. The rates proposed by the Survey officers were 15 per cent. above those of Indápur and 5 per cent. above those of Kurkumb; Government, however, sanctioned the Kurkumb rates, which were 10 per cent. only beyond

those of Indápur. The total assessment according to these was about Rs. 60,000, as against Rs. 88,894 under Captain Shortrede's settlement and a previous rental of 1,22,713. These were in Ankosi rupees, which were of rather less value than Company's. Short rainfall in 1843 and 1844 proved that the rapid increase in cultivation in both Indápur and Bhimthadi had been carried beyond the people's means, and large remissions and a contraction of the cultivated area by about 15,000 acres were the consequence. In the latter year the failure of crops was so complete that many people were only saved from starvation by being employed in making a road from Pátas to Indápur. The next season was more favourable, and the settlement in Súpá had been so successful that the increase of revenue had more than repaid the cost of the settlement. In the three years succeeding the settlement the revenue had increased on an average by 24 per cent. In 1847-48 the cultivated area in the entire Collectorate rose from 1,148,755 acres to 1,228,304.

In 1847 the remainder of Purandhar, comprising the Sásvad Mámlatdár's charge, was revised. It contained thirty-six Government villages. Its chief local market was at the town of Sásvad, the Bápdev Ghat between it and Púna being so steep that produce was generally taken to the latter market on pack-bullocks, although there was a metalled road. There were only a few patches of rice in the whole tract of country. The thirty-six villages were arranged for maximum rates of dry-crop assessment into four classes, as follows, it is uncertain on what principles: ten had a maximum of Rs. 1 2a., fifteen one of 15a. 8p., and nine one of 14a. 3p.; the remaining two being assessed at the Súpá rates. The rice rates proposed, Rs. 3, Rs. 2½, and Rs. 1½, were considered by Captain Wingate to be too high, and Government authorized their reduction if it was considered advisable at the settlement, as well as the continuation of the existing method of assessing hill-lands, which were of trifling extent.

The general result was the reduction of the dry-crop assessment from Rs. 49,060 in 1846-47 to Rs. 33,900 in 1847-48, or 44·7 per cent. In 1847-48 twenty villages in the Baramati group in Indápur, which had lapsed in 1844-45, were revised, with the result of an increase of 37·3 per cent. over the assessment on the

area under cultivation for the five years ending with 1846-47. The maximum dry-crop rate was 13a. 2p. In sanctioning the settlement, Government directed that when rates submitted for approval, as in this case, were compared with rates obtaining in districts where the assessment had been revised for some time, the manner in which the revised assessment had worked should be fully shown.

One of the petty divisions of Sivner or Junnar, viz. Bori, was revised in 1848-49. It contained thirty villages, and adjoined Pábal, to the climate of which its climate was similar, on the north. The rainfall in the east was much more uncertain than in the west. A majority of the holders of land were *mirási*, or hereditary occupants. Under Mr. Pringle's settlement the average acre rate had been 15a. 8p., and on the cultivated area R. 1 0a. 4p. Between 1829 and 1846 the latter had risen from 46,420 to 50,052 acres, but remissions in the first sixteen years had averaged Rs. 10,350, and in the last five Rs. 7,410. It was proposed to divide it into three groups, with maximum rates of R. 1 8a., 14a., and 10a. 4½p. Under wells and small water-channels there was a total area of 4,100 acres irrigated. Some of the latter could only be made use of when the rainfall was unusually heavy, and it was proposed to levy a water-rate on them only when they were so used. A small portion of this area had been formerly assessed at Rs. 3 an acre. Under the new settlement a rate of Rs. 2, as in Pábal and elsewhere, was proposed. The total assessment according to this came to Rs. 4,719, or a little over a rupee an acre.

The general result of the settlement was as follows :—

Old System.—Assessment on cultivation, Rs. 54,642.

New System. — Occupied: Dry-crop, Rs. 40,319; Garden, Rs. 4,719; Total, Rs. 45,038. Waste, Rs. 10,480.

This showed a decrease of about 4½ per cent., on the past net realisable revenue after deducting remissions.

In 1849-50 a settlement was introduced into twenty-six villages of the Brahmanvádi petty division of Junnar (Sivner), in the extreme north of the Collectorate, bordering on Ahmadnagar. It contained also nine *dáng* or hill villages, containing chiefly occasional hill-crop and rice lands, which were not settled pending a survey of this class of land. The tract was badly off for com-

munications, the ascent of the Brahmanvádi pass, over which from 10,000 to 15,000 pack-bullocks annually crossed with grain from Junnar and Púna, returning laden with salt, being difficult. The old assessment had been so uneven that the revised assessment would make very little difference in some cases and a great deal in others.

There was a great difference in the prices of produce in Kotal, which was above the Brahmanvádi Pass, and Utúr and Indápur, which were below it, thus showing the badness of the road. A considerably larger area was shown in the present than in Mr. Pringle's measurement, the former being 51,938 and the latter 70,756 acres; in the former, land on the edges of fields had not been assessed because it had been thought too poor for tillage; but as it had been cultivated the new survey included it all. The average collections for ten years had been Rs. 33,364, and the assessment on cultivation, according to the proposed new rates, would be Rs. 28,557, a decrease of 16·8 per cent., giving an average of 8a. 10p. per acre. The average per acre according to the old recorded area was 14a. 11p.; but, allowing for the increase in the area by measurement, this was reduced to 10a. 11p. The proposed maximum rate, which applied only to the one village of Utúr, was 150 per cent. beyond that of Indápur, and gave an average of R. 1 6a. 2p. It was itself a market town, and was only six miles from Junnar, which was another. The village of Indápur, which adjoined it, had had an average of R. 1 7a., and was reduced to R. 1 0a. 7p. In this village the maximum proposed was double that of Indápur, and in two groups of thirteen and eleven villages it was respectively 60 and 30 per cent. higher. Captain Wingate considered the maximum for Utúr too high, and proposed its reduction from R. 1 14a. to R. 1 10a. The proposals, with this modification, were approved by Government.

In 1850-51 the assessment of the remainder of the Junnar subdivision, containing 109 villages to the east of Bori and south of Brahmanvádi, was undertaken. The country was very rugged in the west, so that only *dali* or hand tillage was practicable. A group of villages called the Haveli, lying between Junnar on the west and Bori on the east, were the finest in the whole Deccan, on account of the genial and certain rainfall. The chief market

town was Junnar, but there were markets also at Utúr and Nárá-yangáon. Under Mr. Pringle's settlement the collections varied greatly, from Rs. 35,000 to Rs. 65,000 ; and in the ten years ending with 1849-50 averaged Rs. 58,350, or at the rate of R. 1 0a. 7p. the acre. The people as a rule were reported to be badly off, to be deeply in debt, and to be almost literally living from hand to mouth, so that a reduction in the Government demand seemed to be urgently needed.

The villages were arranged in five groups for maximum rates of dry-crop assessment. The first, with a rate of R. 1 12a., included twenty-two villages in the east of the Haveli group, mentioned above, and in the valley of the Kukdi river extending to the town of Junnar. The second group, to the west of the first, consisted of twenty-four villages, with a heavier rainfall but a much poorer soil. The maximum rate proposed here was Rs. 1½. The third group, of nineteen villages, had a maximum of R. 1 4a. Between this and the next group, of thirty-four villages, the kind of agricultural produce changed from wheat and *búri* to hill grains. In the latter group the rate was R. 1. In the fifth group, of ten villages on the tops and slopes of the Sahyádrí hills, the rate was 12a. For rice lands two rates, of Rs. 3 and Rs. 2½, were proposed, according to the position of the villages within or on the skirts of the belt of heavy rainfall. These rates were approved, but the proposals with regard to garden lands were not sanctioned, nor a suggestion that for the existing uniform rate of 12a. on the bill-hook (*koita*) in the tracts where *dali* cultivation was in use three rates, varying from 10a. to R. 1, should be adopted. The total Survey rental, according to the Superintendent's rates, amounted to Rs. 55,360, which, compared with the average collections of twenty-one years—Rs. 56,670—showed a reduction of Rs. 1,310, or 2·26 per cent.

In 1851-52 the Ámbegáon petty division of the Khed subdivision, embracing the northern portion of the latter to the south of Junnar, was settled. It contained fifty-eight villages. The two towns of Ámbegáon and Ghode were the chief markets, the former for rice and the latter for other grains. Potatoes were largely grown in it, as well as in the neighbouring parts of Pábal, and were bought up on the spot by dealers for the Bombay

and Pána markets. Since Mr. Pringle's settlement in 1829-30 the collections of revenue had varied, but on the whole rose from Rs. 14,500 in that year to Rs. 17,000 in 1850-51. The remissions had not been heavy, and the Survey officer, Lieut. Francis, was of opinion that a reduction to the amount of such remissions would be sufficient, as the bulk of the landholders were in fair circumstances. Four groups of villages were proposed, with maximum rates of R. 1 8a., R. 1 6a., R. 1 4a., and R. 1. These were similar to the rates in Pábal introduced nine years previously, which had succeeded.

The general results in the several classes were as follows:—

Classes	Former System.		Survey System.			
	1829-1851.	1850-51.	Dry Crop and Garden	Rice	Dali and Grazing.	Total.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
1	8,208	10,154	8,200	100	525	8,825
2	4,736	5,125	4,784	213	622	5,619
3	2,651	2,461	2,662	588	242	3,492
4	2,308	1,859	3,163	450	465	4,078
Total	17,903	19,599	18,809	1,351	1,854	22,014

The total increase was thus 12·3 per cent., but excluding *dali* and grazing, which were not altered under the new system, there was a decrease of 21·7 per cent.

Some modifications were made in this year in the revised assessments in Purandhar, and the rice rates, which had been considered by Capt. Wingate to be too high, were reduced.

In 1852 the Khed subdivision had revised assessments introduced into it. Exclusive of Ambegáon, settled in the previous year, it contained 129 villages, forty-seven under the Khed Mám-latdár, and eighty-two under the Kuda Mahálkari. They lay between Ambegáon on the north, Pábal on the east, Haveli and Mával on the south, and the Sahyádris on the west. Kuda was to the west near the hills, and had a large area of rice land, while the more open country under Khed was well suited for dry-crop

cultivation. The climate was better than that of Pábal, and equal to that of Haveli near Púna, but not quite so good as that of Junnar. Its market facilities were almost as great as those of Haveli, and the people were fairly well off.

Mr. Pringle's assessment in the west of the tract had been more liberal than in the east, and during the period of his settlement the area under cultivation, with various fluctuations, increased by 12,000 acres, or 15 per cent. Remissions had also varied greatly, from Rs. 3,000 in 1831-32 to Rs. 72,000 in 1851-52, out of a total of Rs. 87,159. The villages were arranged for maximum dry-crop rates in five groups, with rates from R. 1 10a. to R. 1. The first contained nine villages along the high-road from Púna to Junnar, which gave them facility for carriage to market. Their climate was also favourable for dry-crop cultivation. The lower rates were for groups lying to the east of the first, where the rainfall became less certain, and to the west towards the Sahyádris, where the climate became too moist for dry crops. The rice rates were arranged in the reverse way, being highest, with a maximum of Rs. 4, towards the hills, and lowest, with one of Rs. 3, farther eastward. For garden lands, the area of which was small, the highest rate for those which were watered from channels was Rs. 3, and the lowest, for land under wells, Rs. 2. No change was made in the *koita*, or bill-hook, system of assessment for hill lands inaccessible to the plough.

The general result was as follows:—

No. of Villages.	Average of former Assessment, 1829-1852.	Old Assessment of 1851-52.	Survey Assessment.				Maximum Dry Crop.
			Dry Crop & Garden.	Rice.	Dali & Grass.	Total.	
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs. a.
9	22,212	25,290	20,355	1	1,095	21,451	1 10
31	27,430	33,602	27,105	199	1,244	28,548	1 8
18	9,788	11,850	11,592	893	609	13,094	1 6
49	12,912	13,867	16,186	4,283	1,496	21,965	1 4
22	2,791	2,550	2,206	1,822	635	4,663	1 0
129	75,133	87,159	77,444	7,198	5,079	89,721	—

Exclusive of dahi and grazing receipts, the increase over the old average for twenty-three years was thus 12·6 per cent.

In 1853 the last subdivision of the Collectorate, Mával (often called the Máwals), came under revision. It occupied the south-west corner of the district, and contained a main group of 102 villages called Mával, and another of seventy-eight called Mulsi, to the south of these. Lying nearer the western range, the Sahyádrí hills, it differed from the rest of the Collectorate in having an abundant and certain rainfall, and being essentially a rice country, *bájri* and *javúri* being hardly grown in it. Most of the rice went to Púna, a little went down the Gháts, and some was kept for local sale on the high-road between Bombay and Púna, at Varangáon, Khandála, and other halting-places. The chief manure used was burnt wood and grass, with which the rice beds were covered.

Mr. Pringle's settlement here had been a success as far as increased tillage and revenue were concerned, the former having advanced mostly in dry-crop lands, from 36,000 acres in 1830-31 to 45,200 in 1852-53, and the revenue from Rs. 47,500 to Rs. 58,300 (dry-crop 8,400 acres and rice 800). But the light assessment had brought Marvári money-lenders in its train, and the people were more deeply in their books than in any other part of the district. Naturally, the grouping of villages for dry-crop maximum rates was from east to west, the rates for the four groups falling from R. $1\frac{1}{2}$ to R. 1, Khandála and a few villages near the road being raised a class on account of the ready sale of their grass. It was found that the best rice was grown not where the rain was heaviest, but in the centre of the rainy tract of country. The system of rice classification adopted was one used in the hilly tracts of Násik by Mr. Fraser-Tytler, according to the kind of rice grown and the character of the embankments. The rates were in four classes of Rs. $4\frac{1}{2}$, 4, $3\frac{1}{2}$, and 3.

The general result of the revision was as follows:—The Survey rental of the cultivated area gave an increase from Rs. 48,320 to Rs. 52,890, or 9·4 per cent. over the average of twenty-three years ending 1852-53, of under 2 per cent. over the average of the ten years previous to the settlement, and on the cultivated area of 1852-53 a fall of 9·1 per cent. There was a

margin of Rs. 17,670 left on the assessed waste land from which the temporary loss of revenue could be made up.

Division.	Classes.	Dry Crop.	Rice.	Grazing and Dali.	Total.
		Rs.	Rs.	Rs.	Rs.
Chief Division	1.—9	4,658	2,176	325	7,159
	2.—51	14,999	9,232	1,312	25,543
	3.—24	3,757	5,342	720	9,819
	4.—16	1,220	2,912	766	4,898
Mulsi	1.—4	1,848	2,130	268	4,246
	2.—13	1,735	4,687	335	6,757
	3.—29	1,187	8,804	667	10,658
	4.—32	1,927	3,950	899	6,776
	178	31,331	39,233	5,292	75,856

The eighteen years ending in 1854 showed in the Collectorate on the whole but little improvement, in consequence of bad seasons and the fluctuations of prices. The area of tillage rose from 895,438 acres (882 villages) in 1839-40 to 1,368,430 acres (941 villages) in 1853-54, and the collections from Rs. 6,36,120 in 1837-38 to Rs. 7,24,760 in 1853-54.

From about 1852 a change set in, partly in consequence of the high prices of the time of the American war, when they began to rise. During the twelve years ending in 1866 the cultivated area rose from 1,368,430 acres (941 villages) to 1,743,179 acres (988 villages) in 1865-66, and the collections from Rs. 7,24,760 to Rs. 10,55,210. Indápur, which had been in the worst condition before 1846, showed a rise in collections from Rs. 65,220 between 1836 and 1846 to Rs. 83,050 between 1856 and 1866, or 27 per cent., whilst remissions diminished from Rs. 12,220 to Rs. 6. In the latter ten years there was hardly any waste land left. This may, of course, be attributed partly to the rise in prices and the increase in population, but, taken in connection with other circumstances, to be explained hereafter when the revised Survey settlements carried out on the expiration of the thirty years' guarantee are described, there can be no doubt that it is mostly due to the benefits of the low and equitable Survey assessments.

At various times before the expiration of the guaranteed settlement, rates based on those already in force were introduced into villages that from various causes lapsed to Government, but as these settlements involved no new principles, there appears no necessity for entering into their details. In 1867 the revision of the Survey settlements was commenced in the subdivision of Indápur, the first originally settled.

In consequence partly of inaccuracies discovered in the old measurements, the whole of Indápur was re-surveyed for revision. The lands were also re-classified, in order to take advantage, which many years' practice had given the Survey Department, of the greater skill with which the operation could be performed. Although on the whole area the error shown by the re-measurement only came to $6\frac{1}{2}$ per cent., the differences in individual numbers were found to be considerable; in a list of twenty Survey fields reported they varied from 1 to 94 per cent.

In the re-classification a much larger area of arable, and a much smaller area of unassessed, land was recorded. At the time of the original settlement prices of agricultural produce were so low that much land of inferior quality was hardly worth cultivation; from the demand for land that had arisen in the course of the thirty years of the settlement, both from increase in prices and the pressure of population on the soil, a great deal of this land, much of which consisted of patches of waste in the midst of cultivation thrown in to form Survey fields, had been cultivated at no other expense than that of ordinary ploughing, thus proving that the old classification, which had recorded it as unarable, had been faulty.

The increase under the revised settlement arising from the assessment of such land was often considerable, so much so as in some cases to enhance a ryot's payments notwithstanding a lowering of rate, and it became a matter of importance to decide whether the extra land should be assessed, or should be considered land which, according to the Survey principle, the ryot was entitled to enjoy rent-free as having been improved at his own cost. Opinions differed on this point, and it was even proposed that credit should be given in every holding for as much unarable, and therefore unassessed, land as there originally was in it. Now,

apart from the improbability that holdings would in many cases have remained the same and in the same hands for thirty years, and the consequent difficulty of carrying such a theory into practice, it would have been contrary to all reason that the State, *i.e.* the community, should suffer a perpetual loss on account of the mistakes or frauds of classers in recording as unarable what simply required to be ploughed and sown to bear crops.

The controversy ended, as it should have done, by the Government of India refusing to sanction the proposal. The circumstances of Indápur had greatly changed in the thirty years of the settlement. At the original survey there was not a mile of made road. In 1852 the road between Púna and Sholápur had been completed, and Indápur had become an important centre of trade. Later on, in 1863, the G. I. P. Railway had been constructed, and opened up, as it were, the markets of the world to it. Prices had risen from 53 *seers* (106 lbs.) per rupee of *bájri* in the five years before the original settlement to 26½ *seers* in the ten years ending with 1865-66. Population had increased 31 per cent., farm bullocks 19 per cent., carts 300 per cent., and ploughs 25 per cent. In other cattle there had been a decrease of 9 per cent., owing, probably, to the contraction of the area on which they formerly grazed. Land had acquired a saleable value, having in forty-eight cases quoted fetched an average of seventeen years' assessment, and in six of these over twenty years. The area under tillage had increased from 238,135 acres to 270,070, and the grazing and unassessed land diminished from 43,658 acres to 18,679. The climate, however, and uncertain rainfall had remained the same, and required caution in dealing with the assessment.

Taking all these points into consideration, an increase of from 50 to 60 per cent. in the assessment would, it was thought, be proper and reasonable. It was proposed to give Indápur itself a maximum dry-crop rate of R. 1 2a., to sixty-two villages one of a rupee, and to the remaining thirteen villages near Kalas, where the rainfall was very uncertain, one of fourteen annas. A little alluvial land on the banks of the Bhima river was assessed at Rs. 1½. The average on the whole came to 7a. 6p. the acre. The general increase came to 53 per cent., the new assessment being

Rs. 1,24,506, as against the old Rs. 81,184. It will be seen hereafter that this percentage was subsequently brought down to 38 per cent.

Bhimthadi was taken in hand in 1871-72. The number of villages was fifty-four, of which twenty-three had belonged to the Pimpalgáon group and 31 to that of Kurkumb. These, with some villages from Purandhar and Bárámati, formed the new subdivision of Bhimthadi. Six of them had lapsed in the course of the thirty years. The communications of Bhimthadi had also been improved by the construction of the railway, and the road from Pána to Sholápur, as well as other local roads. The three market towns of Pátas, Kurkumb, and Yevat were all on the Pána-Sholápur road. In the three decennial periods of the settlement prices of *javári* and *báji* had been respectively $45\frac{1}{2}$ and $36\frac{1}{2}$ *seers* per rupee, $35\frac{1}{2}$ and $28\frac{1}{2}$, and $19\frac{1}{2}$ and 15, showing an increase of considerably over 100 per cent.

The area and revenue collections in the three periods had been as follows:—

Years.	Land Revenue.		From Other Sources.			Total Revenue.	Remissions.	Collections.
	Area.	Rental.	Grass.	Miscellaneous.	Total.			
	Acres.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
1840 to 1850	1,21,127	49,726	214	5,595	6,209	55,935	6,319	49,616
1850 to 1860	1,32,332	60,156	1,103	6,606	6,700	66,865	2,306	64,569
1860 to 1870	1,65,774	74,665	2,947	5,065	8,012	82,677	2,077	80,600

Population in forty-eight villages had increased $39\frac{1}{2}$ per cent., farm cattle 19 per cent., other cattle $5\frac{1}{4}$ per cent., carts 270 per cent., and ploughs $2\frac{1}{2}$ per cent. Two hundred more wells were worked, of which 141 were new and the rest old ones repaired; the total increase was nearly 38 per cent., from 527 to 727. Of the new wells only eight were made in the first ten years, forty-one in the second, and ninety-two in the third; so that the prosperity of the people seemed to be progressively on the increase. A record of sales of land showed prices varying from 10 to 52 times the assessment.

On all these considerations the Superintendent of Survey thought the assessment might be increased from 50 to 60 per

cent., as proposed for Indápur. For this purpose a maximum rate of R. 1 12a. was proposed for seven villages in the Pimpalgáon group nearest to Púna and with the most certain rainfall, and one of R. 1 8a. for twenty-two others not quite so favourably placed in both these respects. Two other groups with rates of R. 1 4a. and R. 1 2a. respectively were proposed, containing sixteen and nine villages. The result in forty-eight villages, the remaining six affording no proper data for comparison, as they had lapsed within the period of the settlement, was to increase the assessment by 73 per cent., as shown by the following statement:—

	Cultivation.		Waste.		Total.	
	Area. Acres.	Rs.	Area. Acres.	Rs.	Area. Acres.	Rs.
Old Survey - -	1,67,618	74,222	1,884	644	1,66,502	74,866
New Survey - -	1,86,776	1,28,971	2,019	871	1,88,795	1,29,842
Increase - -	22,158	54,749	135	227	22,293	54,976

Of this increase 20 per cent. was on account of land in excess of the recorded area found on re-measurement. The increase varied greatly in different villages, being as high as 120 per cent. in one case, and as low as 16 in another. Both here and in Indápur no extra assessment was imposed on land watered by wells. In *pátasthal*, or channel-watered land, rates varying from R. 1 to Rs. 6 per acre, in addition to the dry-crop rate, were given. In the six villages lately lapsed the increase came to 44 per cent. The total cultivated land in the fifty-four villages was found to be 22,293 acres, or 11 per cent. above the recorded area, and the assessment altogether was 69 per cent. in excess of that previously levied. The rates were sanctioned by Government for a second term of thirty years in January 1872.

Between 1872 and 1874 the old settlement was revised in Pábal, the villages of which had in 1866 been distributed over Khed, Junnar, and Párner. The settlement applied to fifty-six villages of old Pábal and three received from Holkar. In the thirty years of the old settlement, leaving out the five years of the American war, in which prices were abnormally high, the

value of *bājri* had risen over 52 per cent. In the five years previous to the first settlement (1836-1841) collections had averaged Rs. 66,510 and remissions Rs. 22,700; the waste land at that time was about one-third of the arable area. During the ten years ending in 1872 the collections were nearly steady, being on an average Rs. 92,300, the only remissions during this period having been Rs. 40 in 1871-72. The waste land in this year was only three-tenths of the whole. Population had increased 11·27 per cent., bullocks 2·7 per cent., other cattle 7·5 per cent., carts 75 per cent., ploughs 12·4 per cent., and wells in working order had risen from 1,493 to 1,977, or 32·4 per cent. Land was more carefully cultivated than in the east of Púna, manure being used in dry-crop as well as garden lands. The selling-price of land in some instances was as high as 116 and 160 times the assessment.

The villages had benefited greatly by the construction of the G. I. P. Railway, two stations of which afforded easy access to the Bombay market. A good many fair-weather roads had been made, and the Púna-Násik high-road crossed it from north to south, and that from Púna to Ahmadnagar from east to west, so that, with several fair local markets to resort to, such as Khed, Pábal, Talegáon and Manchar, people had no difficulty in disposing of their produce.

Owing to improvident expenditure on marriages and other social ceremonies, however, they were still dependent on the money-lenders, although every circumstance was in favour of their increased prosperity. According to the criteria of more or less certain rainfall and distance from markets, the villages were classed for maximum rates of dry-crop assessment in six groups, the first consisting of only one village, with a maximum of Rs. 3. The remaining five had rates falling from this by gradations of four annas, and contained respectively sixteen, thirteen, twelve, eight, and six villages. One of the rivers crossing the tract, the Vel, could be used for irrigation by the construction of temporary dams, and channel water rates were proposed varying from R. 1 to Rs. 6, according to water-supply. The highest dry-crop rates only were imposed on lands watered from old wells, without extra water assessment, involving a loss of from Rs. 20,000 to Rs. 25,000 of revenue. The 92 acres of rice land, which, was of a superior

quality, had a maximum of Rs. 6, and an average rate of Rs. 3 1a. 7p.

In forwarding these proposals, the Survey Commissioner, Col. Francis, suggested that the rate of Rs. 3, which raised the average in the single village to which it applied by 70 per cent., should be done away with, and, by certain modifications of grouping and a reduction of 4a. a class in the first four, and of 2a. in the fifth group, reduced the general increase from 88 to 66 per cent.

The grouping was again altered by Government, and the final arrangement was as follows :—

First group, 9 villages, at Rs. 2 8a.

Second group, 9 villages, at Rs. 2 2a.

Third group, 24 villages, at Rs. 2 0a.

Fourth group, 17 villages, at R. 1 10a.

Under these rates the general increase was 75 per cent. on the whole fifty-nine villages, and the average dry-crop rate 12a. 3p. The total assessment came to Rs. 1,51,510, or Rs. 38,910 below that proposed by the Superintendent of Survey, and Rs. 49,280, or 48 per cent. more than the previous assessment on occupied land.

In 1872-73 the Haveli subdivision, immediately surrounding Púna, from which none of the villages were more than eighteen miles distant, was brought under revision. Púna contained over 90,000 inhabitants, and, in addition to being an excellent market for all kinds of produce, afforded access by its railway station to Bombay and other important trade centres far and near. Eighty-four villages were to be revised, of which twenty-seven had come from Bhimthadi and seven had been transferred to Mával. Three had been settled within fifteen years, and were omitted. The rainfall was plentiful and certain in the west towards the Sahyádris, and uncertain in proceeding eastwards, the climate of Púna itself being more like that of Europe than of the tropics during the monsoon.

In the period of the thirty years' settlement prices of agricultural produce in Púna had doubled. From 109,000 acres in 1841-42 the area of tillage had increased to 124,000 acres in 1871-72. It had in the meanwhile fallen off by about 4,000 acres

since 1866. Collections had fallen in the same time by about Rs. 3,000, but were still Rs. 76,000 in the last year as compared with Rs. 65,000 in 1841-42. In the third decennial period of the settlement they were 2·5 per cent. above those of the second, and 21·3 per cent. more than in the five years preceding the settlement. Since 1856 remissions had been nominal, and in 1871-72 only 634 acres of the worst arable land remained unoccupied. Receipts had been a good deal diminished by a large area being taken up for forest purposes, and for the construction of a large irrigation reservoir at Khadakvásla. During the Survey lease the population of the eighty-one villages had increased by 42·8 per cent., but houses by only 7·3 per cent., which was not at all in due proportion. Plough and draught cattle were more by 12 per cent., carts by 131 per cent., ploughs by nearly 20 per cent., sheep, horses, and other cattle by 29·6, and working wells by 36·5 per cent. 418 of the wells were new, and of these 276 had been sunk in the last ten years. More energy was shown in agricultural operations, and the prejudice of the people to the use of the night-soil of Púna had been overcome. Fruit and betel-nut were especially cultivated near the town. The value of land had so much increased that it sometimes fetched as much as a hundred times the assessment. On the whole the people were better off than those of any other part of the Collectorate.

The area of the eighty-one villages was found to be 28,031 acres more than that recorded in the Revenue books. This arose from the grazing lands not having been measured at the first survey. For dry-crop assessment Vanori (Wanowree), Ghorpuri, and Kirkee were placed in a first class with a maximum of Rs. 4. All three were close to the town and the two cantonments. Six villages, also near, formed a second group, with a maximum of Rs. 3½; and twenty-six villages adjoining these, with a maximum of Rs. 3, formed the third. There were five others, of thirteen, nine, five, nine, and three villages respectively, grouped according to rainfall and distance from market, with rates falling at the rate of 4a. for each group. Of the remaining ten villages, the seven transferred to Mával were placed in the fifth group, at a maximum of Rs. 2½, and the three lately lapsed villages were assigned to the third, fourth, and fifth classes. .

A large tank had lately been constructed in the village of Páshan, and in consequence of the excellent supply of water from it the channel-watered lands under it had a maximum rate of Rs. 8 in addition to the dry-crop rate. The supply in other villages was not very good, and was rated at from R. 1 to Rs. 5½. For rice, grown to the extent of 1,095 acres in the western villages, the maximum proposed was Rs. 12, which gave an average of Rs. 3 10a. 4p. These rates would have raised the rental by 96 per cent. above the average of the last ten years. In one village the increase would have been 228 per cent., of which 90 per cent. was due to arable land which had not as yet been shown in the accounts or assessed. An alternative set of rates was proposed, by which the maximum in each of the first two classes was lowered 8a., and in the rest 4a. These reduced the increase to 79 per cent. on the previous year's collections, of which 16 per cent. was due to the hitherto unassessed area in occupied land.

The Survey Commissioner proposed a lowering of the rice maximum to Rs. 5 from Rs. 6, and by some modifications in grouping reduced the total per-centage until it came to 75 per cent. His proposals were sanctioned by Government, but in consequence of the Government of India expressing their readiness to make further reductions, still greater changes were made, and the total increase finally remained at 67 per cent. above current collections. The average dry-crop rate was 14a. 2p., the channel-water rate Rs. 2 3a. 5p., and the rice rate Rs. 2 15a. 9p.

The following statement shows clearly the successive changes made:—

1871-72 . . .	Rs. 80,965.		
1872-73 . . .	Rs. 1,58,836	Rs. 1,43,544	Rs. 1,34,189.
Per-centage increase	96	77	66

In 1873-74 thirty-nine villages formerly belonging to Súpa, of which thirty had been transferred to Bhimthadi and nine to Purandhar, were revised. The climate in these varied little, but those on the Níra river had a larger proportion of deep black soil. Cultivation was inferior, and no manure was used in the dry-crop lands except the droppings of sheep occasionally penned upon them. The garden land, which was all under wells, was not of a

superior kind. In the course of the Survey lease the relative importance of markets had changed considerably, in consequence of the construction of the railway and local roads. The price of *javári* had risen in the last ten years of the lease by about 135 per cent., and that of *báji* 143 per cent.

At the time of the first settlement this tract had begun to benefit from the revision of assessment that had been carried out by Lieut. Shortrede. Notwithstanding this, from 1836 to 1842 only 40 per cent. of the revenue was collected, and up to the time of the first Survey settlement large remissions had to be given. The rates under this, introduced in 1843, were the same as those of Kurkumb, or 10 per cent. higher than in Indápur. At the time of the settlement 26,802 acres out of 141,310 were waste, and from its commencement an increase in tillage took place, the average waste in 1864 to 1873 being only 1,843 acres.

The state of matters in the three decennial periods is shown below :—

Years	Occupied		Waste.		Total.		Remis- sions.	Collec- tions.
	Area.	Rent.	Area.	Rent.	Area.	Rent.		
	Acres.	Rs.	Acres.	Rs.	Acres.	Rs.	Rs.	Rs.
1843 to 1853	1,26,604	50,564	15,190	6,162	1,41,794	56,726	1,707	48,856
1853 to 1863	1,39,966	56,498	2,825	2,212	1,42,791	57,710	416	56,082
1863 to 1873	1,42,225	57,390	1,843	612	1,44,068	58,802	1,989	55,500

During the Survey lease population had increased 43·5 per cent., houses 13 per cent., wells 71 per cent., carts 202 per cent., ploughs 31·2 per cent., draught and plough cattle 10·4 per cent., but horses had diminished 26·6 per cent. Other kinds of cattle had also increased a good deal, which was not the case in the neighbouring districts. Of the new wells, forty-four were made in the first decade, 148 in the second, and 225 in the last of the Survey lease. All this proved conclusively that the condition of the people was good. Few families were hopelessly in debt, and every village held some who were quite free.

The thirty-nine villages were arranged for maximum dry-crop rates in four groups, with rates varying from R. 1 to R. 1 6a. In the first there were only two, which were close to the Níra bridge

on the Púna and Sattára road. Twelve on the western boundary and on the road to the Khedgáon railway station were in the second, at a maximum of R. 1 4a. Twelve more to the south and east of these were placed in a third, at R. 1 2a.; and thirteen in the south-east, with the most uncertain rainfall, had the R. 1 maximum. There was no rice, and the channel-watered land was poor. The highest rate for the latter was fixed at Rs. 2. Compared with the previous year's collections, the new settlement showed a rise from Rs. 57,461 to Rs. 81,713, or 42 per cent., as shown below:—

	Occupied.		Waste.		Total.	
	Acrea.	Rental.	Acrea.	Rental.	Acrea.	Rental.
Old Settlement	Acres. 1,42,235	Rs. 57,461	Acres 1,430	Rs. 413	Acres. 1,44,065	Rs. 57,904
New Settlement	1,56,828	81,713	1,178	230	1,58,386	81,943
Increase	14,593	24,252	—	—	14,321	24,039
Decrease	—	—	272	213	—	—

The Survey Commissioner proposed a few modifications by doing away with the first group and lowering some of the other villages a class. These proposals were sanctioned by Government.

Prices subsequently fell, and it did not seem probable that the high prices of 1872 would be maintained. It was therefore deemed advisable in 1874 to fix a limit beyond which increases at the revision settlements should not be allowed to go. This was fixed at 33 per cent. on any group of villages as a whole, at 66 per cent. on any single village, and at 100 per cent. on any individual's holdings.

In order to bring the above-mentioned assessments in five subdivisions into accord with this Resolution of Government, the Survey officers were directed to lower the maximum rates in each group so as to bring the total revenue of the group within 50 per cent. increase. After this, any case in which the increase was still above 75 per cent. in a village, or 100 per cent. in a holding, was to be reported specially for the orders of Government. In accordance with these instructions, proposals were sent in and

received sanction, which reduced the enhancements in the five subdivisions to the amounts shown in the following statement:—

Name of Subdivision.	No. of Villages.	Settlement, 1836-1844.	Final Settlement, 1875-76.	Increase over 1836-44.	Average Dry-Crop Rate.
		Amount.	Amount.		
		Rs.	Rs.	Per ct.	a. p.
Indápur - -	78	81,184	1,11,866	38	6 8
Bhimthadi - -	48	74,222	1,03,982	40	8 9
Haveli - -	83	80,965	1,13,773	41	11 10
Pábal - -	59	1,02,228	1,39,479	36	11 2
Súpa - -	39	57,461	72,303	26	—

In 1878-79 forty villages in Purandhar were brought under a second revision. Five of these were *dumála*, or shared villages. Most of the villages had belonged to the Sásvad Mámlatdár's division, which had been settled in 1847. Seventeen of the thirty-five Government villages were revised in 1878, and the other eighteen in 1879. The subdivision bordered on Bhimthadi on the east and on Haveli on the north. Its husbandry was similar to that in the neighbouring subdivisions, except that the land was more frequently ploughed; and a great deal of manure was used for sugar-cane and garden crops, while dry-crop lands were also manured when enough manure could be procured.

During the Survey lease the communications had been greatly improved. In 1847 the only made road was that by the Bápdev Pass from Púna to Sattará, which, as stated above, was mostly used by pack-bullocks and but little by carts. By 1878 there were numerous lines of communication with different large markets, the chief of which was Púna. There were some small local manufactures of blankets, cotton-cloth, and bangles.

In the matter of prices of the three principal grains, viz., *javári*, *bájri*, and wheat, there was an increase of fully 100 per cent. in the course of the Survey lease.

The following statement shows the progress in cultivation and realisations of revenue during the lease, and for ten years previous to it, in fifteen villages:—

Years.	Vil- lages.	Cultivation.	Waste.	Remis- sions.	Outstand- ing Ba- lances.	Collec- tions.
		Acres.	Acres.	Rs.	Rs	Rs.
1827-1847	15	19,834	2,046	2,300	—	17,924
1847-1857	—	40,209	1,148	81	352	16,932
1857-1867	—	41,225	373	8	1	18,130
1867-1877	—	41,420	214	—	521	18,390

Population in these villages had increased by 22 per cent., flat-roofed and tiled houses by 19·7 per cent., and thatched houses by 15·1 per cent.; ploughs by 36 4 per cent., and carts from 60 to 315, or 425 per cent. The value of land, as ascertained by the sums for which it was mortgaged and sold, was higher than in any subdivision hitherto dealt with.

The villages were divided into five groups for maximum dry-crop rates, with the result shown in the following statement :—

Groups	No. of Villages.	Old Rental.	Dry Crop by New Settlement.		
			Rent.	Increase per cent.	Maximum per Acre.
		Rs.	Rs.		Rs. s.
1	1	3,257	5,114	57·0	2 0
2	2	1,586	2,067	30 3	1 14
3	10	11,244	14,320	27·4	1 10
4	2	1,273	1,446	13·6	1 8
5	2	1,373	1,721	25 3	1 6
	17	18,733	24,668	31·6	—

Inclusive of all descriptions of land, the revision caused an increase of 52·8 per cent. in the rental.

The lands of the other eighteen villages were intermixed with those of the first seventeen. The climate, communications, and markets were the same in both. In the ten years before the first settlement the average area of waste had been 5,238 acres, which had fallen by 1877-78 to one of four. Population had increased by 22·9 per cent., flat-roofed and tiled houses by 18·2 per cent.,

carts by 121 per cent., and working wells by 36·8. Thatched houses decreased by 23·3 per cent. (326 to 250), farm cattle by 19·7 per cent., and ploughs 17·9 per cent. If these statistics are correct, economical farming must have made great progress in the thirty years.

The villages were arranged in six groups, with maximum dry-crop rates varying from Rs. 2 12a. to R. 1 6a., giving an increase of 34·3 per cent. exclusive of water-rates, and 39 per cent. inclusive of them. The average acre rate rose from 8a. 2p. to 11a. 2p. In a small quantity of rice cultivation a proposed maximum of Rs. 8 gave an average rate of only Rs. 2 3a. 7p., and all new rice and garden lands were assessed at dry-crop rates. There was a total area of 1,435 acres of garden land, for the portion of which irrigated from channels a maximum of Rs. 8 was proposed.

The result is shown in the subjoined statement:—

Groups.	Villages.	Government Occupied Land.					Maximum per Acre Dry Crop.
		Old Survey.		Revision Survey.			
		Area	Rent.	Area.	Rent.	Incr. %	
		Acres.	Rs.	Acres.	Rs.		Rs. a.
1	3	4,375	2,812	4,406	4,481	59·4	2 12
2	3	1,844	1,125	1,930	1,693	50·5	2 0
3	2	5,721	3,003	5,908	4,716	57·0	1 14
4	1	242	124	245	127	2·4	1 12
5	1	1,887	569	1,481	1,128	29·8	1 8
6	8	22,906	10,553	22,930	13,486	27·8	1 6
	18	36,475	18,486	36,900	25,631	39·0	—

Proposals for the revision of the Survey assessment in the Mával subdivision, the greater portion of which was settled in 1853–54, were submitted, and sanctioned by Government in 1887 for the usual term of thirty years. Considerable changes in its constitution had been made in the meanwhile, forty-six villages having been added to it from Khed and Haveli, and eighty-four transferred from it to the latter. It accordingly now consists of 142 Government and twenty-six alienated villages. It was one of

the Tálukas originally surveyed and assessed by Mr. Pringle, much of whose work had been confirmed at the settlement of 1853-54. This arrangement having on the whole proved unsatisfactory, both measurement and classification of soils have been re-done under recent orders, with the result that 17,241 old Survey numbers have become 30,919 under the revision, each man's holding being now separately recorded and assessed, excessively large fields broken up, and all alienated lands divided off from those paying *reht* directly to Government. The difference in the general area amounted to only 411 acres in 212,728 in favour of the new measurement.

Mával is now bounded on the north and west by Khed and Haveli, on the south by the country of the Pant Sachiv of Bhor, and it is separated from the 'Tháná Collectorate on the west mostly by the Sahyádrí range. It is generally hilly, and divided by five spurs from that range into valleys from west to east. The Indráni river and its tributary streams drain all but the southernmost valley, the latter being watered by the Pávana, which through part of its course forms the southern boundary of the subdivision. Along the valley of the Indráni run both the old made road between Bombay and Pána and the south-eastern branch of the G. I. P. Railway. The southernmost valley, that of the Pávana, ranks next to this in size and accessibility, but the others contain little level ground, and are difficult of access for wheeled carriage. Along the banks of the Pávana and up the valley of the Indráni to within five or six miles of the Ghát crest there is good black soil, but the prevailing dry-crop soil is reddish or grey, poor in depth and quality, but easily tilled, and capable of yielding fine crops of the usual hill products. Rice is raised of peculiar excellence. A large proportion of its area, nearly a half, is left uncultivated, partly for the supply of Pána with hay and partly for grass to be used in the rice lands as *ríb* or ash-manure. The climate, as in all districts lying near the Gháts, varies greatly, the rainfall at Lanávli in the west being about 162 inches in the year, at Khadkála in the centre nearly 70 in., and at Talegáon in the east about 40½ in. Owing to excessive clearing of forest on the hill slopes, a matter only lately taken in hand and a remedy by re-planting provided by the Forest Department, great denudation

has taken place, which the efforts of generations will be required to counteract.

The railway has four stations within the limits of Mával, and at one of them, Talegáon, is the principal local market, which is the depôt for the trade between Khed, Junnar, and Bombay. Púna is supplied with most of its grass and a good deal of firewood from the Khadkála station. Lanávli contains a large permanent European and Eurasian population dependent partly on local supplies; and here and at other places there are smaller bazaars held, so that on the whole the subdivision is well off in the matter of outlets for its produce. There are hardly any manufactures, except that of a little oil from *khoriáni* in rude mills.

During the currency of the first Survey lease for thirty years the population in 133 out of 142 villages has increased by about 42 per cent., and now represents a density of 153 per square mile; this, considering the proportion of hilly and uninhabitable country, is rather high. The number of carts has increased by about $75\frac{1}{2}$ per cent., and that of agricultural cattle, although its advance, 8·7 per cent., is apparently small, as it gives the proportion of a pair of oxen to nine acres of cultivation, has kept pace with the increased area of tillage.

The following statement shows that prices on the whole have advanced to about double in the course of the settlement:—

Period.	Báji.	Wheat.	Cleaned Rice.
First year of settlement	34	26	15
Ten years, from 1852-53 to 1861	26	$21\frac{1}{4}$	$13\frac{1}{2}$
Second decade, from 1862-63 to 1871-72	$12\frac{1}{2}$	$10\frac{1}{4}$	$7\frac{1}{4}$
Fourteen years, from 1872-73 to 1885-86	$15\frac{1}{2}$	12	9

Not to go into too great detail, the returns for 100 villages show that from an occupied area of 28,925 acres, assessed at Rs. 33,956, in the year before the introduction of the settlement, cultivation had risen in 1885-86 to 69,790 acres, yielding Rs. 41,886, while the remissions had been nominal, amounting casually in the worst year to only Rs. 123. Collections have been made without difficulty; in the three last years, from 1883-84 to 1885-86, out of a total number of 1,787 notices for the sale of occupancy

rights on account of unpunctual payment of instalments of revenue, the demands of the Collector have been paid up without requiring the sale of a single field.

There were thus perceptible signs of such an advance in the general prosperity of the subdivision as to warrant an increase of assessment up to the limit allowed by the orders of Government, and this view, although objected to by the Survey and Revenue Commissioners, has been adopted by the Bombay Government, and finally confirmed by the India Office. In the new grouping for maximum rates of assessment the same principle as that adopted in the old, viz. differentiation according to the change in climate from west to east, and proximity to the main line of communication, has been adopted, and there is accordingly little difference between the two groupings.

The first group now consists of fourteen villages in the east, where the climate is most favourable and the communications best, with the station and market of Talegáon; the old maximum, varying from R. 1 6a. in one village to Rs. 2 in seven and R. 1 8a. in the remainder, has been raised to Rs. 2 2a. for dry-crop and Rs. 8 for rice.

The second group, of 67 villages, includes the open country at the mouth of the Indráini valley, the villages on each side of the railway, and the Bombay road as far westwards as the Gháts, and thirteen in the valley of the Pávana, which but for their inferior communications might have gone into the first group. The old maximum dry-crop rates varied from R. 1 4a. to R. 1 6a., and have now been raised to R. 1 8a.; the maximum rate for rice is the same as in the first group.

The third group, of thirty-nine villages, lies in the remoter parts of the valley of the Indráini and along the northern border, with a few in the Pávana valley. Though equal in climate to the second group, the communications of this are not so good. The maximum dry-crop rate of R. 1 4a. in the majority of these villages remains as before, being lowered in five from R. 1 6a. and raised in three from R. 1. The maximum rice rate adopted is Rs. 7.

In the fourth group, of twenty-two villages, stretching along the crest of the Gháts, and in some cases down the western slopes,

the old maximum dry-crop rate of a rupee has also been retained, and one of Rs. 6 adopted for rice. The climate here is excessively moist, and wheeled traffic almost unknown.

The area of rice cultivation in Government land has increased in the course of the settlement from 10,915 acres to 14,786; the average assessment rises from Rs. 2 2a. 9p. to Rs. 2 8a. 9p. per acre. The area recorded as garden in the old Survey was only twenty-six acres, assessed at an average of Rs. 11 1a. 10p. the acre; it is now 186 acres, assessed as follows :

	Acres.	Average rate.
<i>Motasthal</i> (under wells) . .	151	2 1 3
<i>Pátasthal</i> (under channels) . .	35	3 10 1

The rules regarding non-assessment at extra rates of land improved at the tenant's expense, and reducing that under old wells to dry-crop rates, have been strictly adhered to. The general effect of the revision is shown below :—

Class.	Villages.	By Old Survey.		By Revision Survey.						Per cent. Increase.
		Government Occupied.		Government Occupied.		Government Unoccupied.		Total.		
		Area. Acres.	Rs.	Area. Acres.	Rs.	Area. Acres.	Rs.	Area. Acres.	Rs.	
1	14	15,540	12,555	15,734	15,667	295	171	16,029	15,838	24.8
2	67	55,873	31,381	59,313	45,861	3,124	1,823	62,437	47,684	33.4
3	39	25,451	12,810	27,302	16,767	2,252	667	29,554	17,434	30.8
4	22	13,473	5,405	15,858	7,332	523	103	16,381	7,435	33.4
	142	1,10,337	65,250	1,18,167	85,627	6,194	2,704	1,24,361	88,391	31.2

The twenty-five villages of the Haveli Táluka of the Púna (Poona) Collectorate in which revised settlements have not been carried out have now been brought under revision, four of them for the first time. They include the town of Púna and most of the neighbouring villages, with a few scattered amongst others already settled. They are the most favourably situated of the whole Collectorate, being in the neighbourhood of the large market of Púna, with its abundant non-agricultural population, having five stations of the G. I. P. Railway and three of the Southern Mahratta line within their limits, and being otherwise well supplied with roads for cart traffic.

The usual statistics which go to prove the prosperous condition of the country and its ability to bear an enhanced assessment are

equally favourable in these villages as in the rest of the Táluka, whilst in one respect, viz. that of having had a large irrigation work constructed in their neighbourhood, some of them have a decided advantage. Population, working cattle, ploughs and carts have increased in numbers, with the exception of the three villages in the immediate neighbourhood of Púna; in these the decrease is nominal in consequence of the people having been absorbed in the population of the town itself.

As much as 86·6 per cent. of the Survey fields are in the hands of the registered occupants, and 11·8 are sublet for cash and grain rents. In sales of land, voluntary and by order of the civil courts, twenty-six times the assessment on the lands sold have been realised, and in a hundred cases of lease nearly five times that assessment have been paid. In a hundred cases of mortgage without possession land assessed at Rs. 1,847 stands security for Rs. 17,136, and in a hundred of mortgage with possession land rated at Rs. 1,488, an area of 1,477 acres is held for payment of Rs. 35,096. The revenue has been collected with ease, the remissions granted having been inconsiderable, and the area of cultivation and waste at the commencement and end of the Survey lease have been respectively 14,215 and 19,111 and 3,935 and 142 acres. Thus, practically speaking, there is no waste left for extension of cultivation.

The maximum rates of assessment for dry-crop lands adopted on revision and the reasons for them have already been given for the whole Haveli Táluka, and those adopted in the twenty-five villages are severally the same as those of the villages of the group in which they are situated.

With regard to lands watered from channels supplied by the irrigation lake of Kharakváslá, mentioned above, the maximum rate of Rs. 8 in force for the rest of the Táluka has been raised to Rs. 10 in the three villages of the first group close to Púna, on account of their superior position. In rice lands a maximum of Rs. 6 has been taken in place of Rs. 4 to Rs. 5 adopted in the villages already settled. Land under new wells has had no water assessment placed on it, while what is under old wells and what has been converted from dry-crop to rice have been assessed within the maximum dry-crop rates.

Garden land has increased in area from 484 to 1,091 acres. Its average assessment is increased from Rs. 2 9a. 2p. to Rs. 3 8a. 4p., in consequence of improved facilities for irrigation supplied by the State.

The area of rice land is greater by 710 acres, and its average assessment is increased from R. 1 15a. 7p. to Rs. 2 14a. per acre. The general financial result is an enhanced demand of Rs. 10,682, but of this Rs. 627 are due for water-rate. The general average rate has risen from 10a. 6p. to R. 1 0a. 7p. The total increase is one of 65 per cent., but exclusive of water-rate 60 per cent. This being in excess of the 33 per cent. permitted by the rules as the limit beyond which assessment is not to be raised on revision in any group of villages, a special remission of one-sixth of the assessment on each Survey field has been ordered for the whole period of thirty years for which the new rates are to continue in force.

It has been pointed out by the Survey officers that the literal carrying-out of this order will not have the effect intended, but will result in some cases in the enhancement still remaining considerably above the per-centage desired, and in others in bringing it down far below that standard. In addition to this, it will violate in some cases the supplementary rule that the increase in any single village may be as high as 66 per cent. Notwithstanding this remonstrance, the Bombay Government have simply adhered to their first order, and assigned no reason for doing so. The complication that will be caused in the village revenue papers in consequence may well be imagined, when it is remembered that each village contains some hundreds of Survey fields, five-sixths only of the recorded assessment on each of which will now be brought to account and one-sixth shown as remission every year. In these twenty-five villages the whole were re-measured and the soils classified again.

Five villages of the Bhimthadi Taluka, in which the original settlements were still in force, were brought under revision in 1890, and have had new rates applied to them similar to those of the villages of the several groups in which they lie. There is nothing peculiar in the circumstances of these villages requiring special notice. They have shared in the prosperity of the re-

mainder of the Táluka, and, being scattered in different directions, have rightly been grouped with adjacent villages for maximum rates. The enhancement in four has been well within the limits assigned by the rules ; and although in the fifth the increase is considerable, above the 66 per cent. allowed by those rules, Government have not seen in its circumstances sufficient reason to direct the strict enforcement of the latter limit. It would have been better if strict principle had not been acted up to in the twenty-five Havéli villages mentioned above, where there were really strong reasons for its relaxation.

AHMADNAGAR (AHMEDNUGGER).

THE Ahmadnagar Collectorate lies to the south of Násik, between $18^{\circ} 20'$ and $19^{\circ} 59'$ N. lat., and $73^{\circ} 40'$ and $75^{\circ} 43'$ E. long. It is bounded on the east by the Nizám's territories, and on the south and west by Sholápur and Púna, touching Tháná in the Ákolá Táluka. Its area is 6,666 square miles, and, according to the census of 1881, it had a population of 112·69 to the square mile. It is irregular in shape, somewhat resembling a slanting cross, and is about 120 miles in length and 125 in breadth. One Táluka, Jámkhed, is isolated in the midst of the Nizám's territories. It contains the eleven subdivisions of Kopargáon, Nevása, Shivgáon, Nagar, Karjat, Shrigonda, Párner, Sangamner, Ákolá, Ráhuri, and Jámkhed. Its vernacular is Mahratti.

On the acquisition of the territories composing the old Ahmadnagar Collectorate, inclusive of a portion of what now belongs to Násik, between 1817 and 1822, from the Peshvá, the Nizám, Holkar, &c., the country between the Chándor hills and the Bhíma river was placed under the charge of Capt. Pottinger. Order was easily restored, for the country was exhausted, and the people willingly obeyed any power that could protect them. The Koli and Bhíl Náiks, who held the country near the Sahyádris, were sent for, and their allowances and villages confirmed to them on condition that they should keep the neighbouring country quiet. The district thus enjoyed more complete rest than it had for many years.

At this time the country was almost ruined. According to Mr. Mountstuart Elphinstone, the east of Gangthadí, though open and

fertile, had been almost without inhabitants since the famine of 1803-4. In Nevása at that time only twenty out of 180 villages remained inhabited. Between this and Ahmadnagar matters were better, and to the south of Ahmadnagar there was much rich cultivation, but still in 1819 more than half of the land was waste, and in Párner, next to Sirur in Pána, the country was a wilderness. Subsequently to 1822, cessions and exchanges of villages have been carried out as late as 1870.

Few traces of early Native systems of revenue management remained on the introduction of British rule. One of these was the division of the land into *munde*, *kís*, and *tika*, or *thika*. A *mund* was an aggregate of many fields or *tikas*, the assessment being fixed on the former in a lump sum, notwithstanding any variety of lands contained in it. In the settlement of *kís*, or small estates, the division of village lands was into smaller portions than *munds*, and the assessment on each *kís* was the same. A trace also remained of the *tankhá*, or village rental, introduced by Malik Ambar, the Minister of Ahmadnagar, in about 1600 to 1626. It was an imitation of what had been done in Khándesh and Gujarát by Akbar's Minister, Todar Mal, after careful estimates framed of the produce of land, of which one-third was fixed on each field as the share the State was entitled to. It was not fixed permanently, but represented the standard sum payable in a normal year. Malik Ambar gave the ryot a joint interest with the State in the land by revising and confirming the right of hereditary occupancy under the *mirúsi* tenure. Different descriptions of land, such as *jirúyat* (dry-crop), *bagúyat* (garden), and *tari* (rice), were recorded in a *bigha*, which was equal to about three-quarters of an acre; but the farming system of the Mahrattas intervened and obliterated all traces of a regular system. No reliance could be placed on village records that were found occasionally in existence. The ryots apportioned the village lands in *munds* among themselves, according to their known productiveness, but on unknown data. When any *mund* land was relinquished, it was let out at *istúvá*, or gradually-increasing rents, until the original standard was reached. It was a permanent rent and not increased in the case of outsiders (*upri*). Cesses had been common among the Mahrattas, but were abolished under British rule.

In Ahmadnagar Mirásdars were about equal in number to the ordinary tenants, and had the privilege of paying dry-crop rates in garden lands, which was not the case in Púna, where they were in the proportion of three to one.

The rates of assessment were estimated to equal from a maximum of Rs. 3 in dry-crop to a minimum of 4a., and in garden from Rs. 6 to R. 1 2a.

The first record of a separate revenue for Ahmadnagar is in the accounts for 1820, when the total (inclusive, probably, of *mokhtarfá*, taxes on trades, and *sáyar*, miscellaneous, such as spirits and drugs) appears as Rs. 18,24,428 from 1st May 1819 to 30th April 1820. In the next year this fell to Rs. 16,35,703, in consequence of the transfer of Sivner (Junnar) and Indápur to Púna. Owing to the transfer of Báisi to Sholápur in the next year, 1821-22, the revenue again fell to Rs. 15,84,527. In the following year, again, there was a nominal increase of Rs. 56,916 in consequence of the annexation of some of the Sholápur Tálukas formerly in Dhárvár.

With the abolition of the farming system Captain Pottinger adopted that of settlement with individual ryots, made either by himself or by his Mámlatdárs, in conjunction with the Patels or village headmen, the hereditary district officers, Deshmukhs, Deshpándis, &c., being consulted as little as possible; for he found that they plundered both the Government and the ryot. About a week before he was to arrive in a subdivision he sent word that the village headmen and accountants (Kulkarnis) should be summoned, and statements of cultivation of each village, showing increase or decrease, made out in a given form. On his arrival at a village these were inspected, and the correctness of the returns tested by clerks sent out to different villages. If anything wrong was discovered, the headmen were made responsible and punished. After these investigations the ryots of some of the nearest villages were summoned, and a *kulvár*, or *rayatvári* settlement made, *patás* or yearly agreement being given to the people. The Mámlatdárs or Kumávisdars settled all the Collector could not himself get through. All restrictions on removing or disposing of crops was done away with, and six instalments were fixed for the payment of the revenue. Out of 100 ten parts were to be paid in Novem-

ber and December, and twenty in each of the four months from January to April, inclusive. About one-fifth of the revenue was usually unpaid at the end of April.

This was of great advantage to the people, as it enabled them to pay their rents from the sale of their crops, without having to borrow money. Village expenses were fixed at 6 per cent of the village rentals; the amount was strictly adhered to and a refund enforced if it was exceeded. *Upris* and outsiders were allowed to come in and settle on exactly the same terms as old residents, and anybody who chose to do so was allowed to go away; the latter, however, was merely a nominal permission, as no one felt disposed to leave British territory. For lands that had lain waste for some years leases for from four to eight years at gradually increasing rentals (*istívú*) were given; when lands covered with brushwood were taken up, they were allowed to be rent-free for one or two years, and when waste was converted into garden land five years of *istívú* were generally granted.

As it was found that the headmen threw obstacles in the way of strangers getting leases, for fear they should obtain *mirási*, or hereditary rights, the power of granting such leases was transferred to the *Mámlatdárs*. Mr. Chaplin, the Commissioner in the Deccan, objecting to several things in the existing practice of granting leases, proposed that in all *istívú* leases the holder should have a separate record for fields under such leases, and others on which full rent was paid, the area in *bighas* and the rent of each to be specified; and that registers of all individual leases should be furnished to the Collector's office, all changes being noted at the annual settlement.

Between 1825 and 1828 a survey known as the Old Deccan Survey was introduced into part of Ahmadnagar; this seems to have been somewhat on the plan adopted in the Ceded Districts of Madras, but neither its measurements nor classification of soils were ever put to any use. Of the numerous cesses that had been established under the Mahratta Government the most oppressive were abolished, and the rest continued. Owing to all these measures, by 1821 about 390,000 *bighas* of waste land had been cultivated, and Captain Pottinger wrote in 1822 that if it had not been for the cholera, which had raged, the change would have been

quite surprising. Up to 1822 prices were still fairly high, and the tillage of waste had gone up to 500,000 *bighas*; but with the end of this period a fall in the value of grain had set in which put a stop to this rapid rate of progress. *Javúri* fell from 30 to 90 *seers* the rupee, and in 1823-24 the area of tillage fell from 2,154,326 to 1,981,182 *bighas*, the gross revenue from Rs. 25,50,530 to Rs. 22,04,590, and a rise took place in remissions from Rs. 97,420 to Rs. 2,96,400.

In 1823-24 the rainfall was short, and in 1824-25 it was worse. In the latter year the area under tillage rose slightly, but the remissions amounted to Rs. 10,20,000 and the revenue fell to Rs. 19,60,000. Prices, in addition, continued to fall, and in 1826 cultivation fell to 1,804,000 *bighas*, and remissions rose to about Rs. 2,50,000. Mr. Dunlop, who became Collector in 1825, and wrote in December 1826, saw no hope of improvement. There was no local demand sufficient to absorb the produce of even a fair harvest, and the distance from water-carriage and markets rendered the surplus grain of little value. He thought some good might be done by encouraging horse-breeding. His views were tinged with an extra tint of gloom, probably from his having been accustomed to Gujarát, where the land was much more fertile and the people better off. He, however, introduced a useful reform in the shape of an improved system of village accounts. In 1828 a general report on the revenue system, &c., of Ahmadnagar was sent in by the Collector; this only explains in somewhat more detail what has already been said on the subject.

From 1828 on to 1832-33 the seasons were more or less unfavourable, but in 1833-34, in consequence of the good season, the revenue rose to Rs. 13,99,600, a higher sum than had been collected for ten years. The remissions in this year were still, however, Rs. 2,81,039, and in the ten preceding years had once reached Rs. 9,81,884, and never been less than Rs. 1,88,778.

In the next few years a certain partial amount of relief was afforded by the remission of water-rate (*pán-bharit*) and the reduction of dry-crop and garden assessments in 1835-36, as well as 1836-37, extending to Sangamner, Nevása, Ahmadnagar and Karda, as well as by the abolition of land customs to the extent

of Rs. 1,64,000 in 1837-38. In the fourteen years ending with the latter four lakhs of rupees had been written off the books as remissions, and in 1837-38 the revenue stood at Rs. 12,65,060.

It was still found that the rates were too high, and there was little chance of real improvement until they were so reduced as to do away with the necessity for annual remissions. The Collector was authorized to undertake this, and in this and the following year reductions to the extent of Rs. 26,460 were carried out. Between 1823 and 1833 much more detailed village field registers and other village accounts were introduced, which gave trustworthy data for fixing the annual settlements. Orders were also issued for the leasing out on favourable terms of deserted and decaying villages. On the whole the area of tillage had increased, but this was attributed by the Collector to the grant of leases of land at low rates, and not to any general improvement in the condition of the people.

In 1838-39 there was again another failure of crops, and remissions to the sum of Rs. 5,69,800 had to be given. Advances were made for the construction and repair of wells, but what was still more important, a plan of survey and settlement prepared by Mr. Goldsmid was submitted to and approved by Government. It was divided into two branches. Mr. Goldsmid was to be in charge of the survey of the villages in the plains (*deshi*), and Mr. Tytler presided over that of the *díng* or hill survey. The account of the latter will be found under the head of Násik, to which as a Sub-collectorate the country then belonged; this was not finished till 1847-48.

During the years 1839-40, till the Survey settlement was commenced by the adoption of the plan carried out under Mr. Tytler in Násik, in the *díng* or hill portion of the Akolá subdivision, in 1848, no general measure of reform in the revenue system of Ahmadnagar was proceeded with, a few local revisions only being carried out with the help of Mr. Pringle's measurements in the south, by the Collector and his assistants.

In Akolá, which was the most western portion of the district, there was but little level land; the soil was poor, the rain plentiful, and the torrents so numerous and strong, that dry-crop land had often to be banked like rice to prevent its being carried away.

The people were mostly poor, and the pressure of population only 55 to the square mile. There were only two weekly markets. With no manufactures worth the name, no made roads, and the stagnation of trade, there was nothing to relieve the pressure of the people on the soil for subsistence. The Kolis, who formed half the population, were careless, thoughtless, and improvident, generally in debt, and given to plundering. The only people fairly well off were the Kánadáas, a shepherd tribe. No part of Ahmadnagar called for reform more urgently than this.

In the 112 Government villages of Akolá four systems of realising revenue existed. First, the *bigha* rate (*bighavni*) in forty, the plough-tax (*áolbandi*) in thirty-five, the *nakta chúl*, or cash-rate, in thirty-seven, and the wood-ash (*dali*) rate, found more or less in them all. The first professed to divide the lands into fields, recorded in a field-register (*number-khardí*), but there was neither measurement nor classification of soils. The *bigha* was of every size, from half an acre to two, three, or four acres, and in the forty villages there were twenty-five different rates, each village generally having from three to six. The Kulkarnis also levied certain grain fees and 8a. in cash on every thirty *bighas*. The plough-tax was a tax on ploughs—two-bullock, four, six, and eight-bullock. The rates were forty-three in number; each village had commonly three or four rates, and these were halved and quartered. Any little circumstance, at the pleasure of the Kulkarnis, changed the plough-rate, such as loss or increase of bullocks, or the area of cultivation; any addition to a man's family or establishment, and other causes, would lead to the increase or decrease of a whole or part of a plough. Plough-tax was recalculated every year, the Kulkarni assessing nominally on the Patel's information. There was in reality no system, and the assessments could not be checked.

The *nakta chúl*, or cash system, was fixed after the following fashion. The ryot's power of paying, the number of his bullocks, pastures, and family, were said to be the chief criteria in fixing the assessment, but the lump assessment was changed every year for such causes as the loss of a son, or partner, or a bullock, which made it fall. Similarly, when a man's cultivation or means increased it rose. No test of this was possible, and it was never

attempted. The Kulkarnis levied in addition certain grain and cash fees.

The fourth system was that of taxing *dali*, or hill land manured by wood-ashes. The rates were fixed by the Kulkarni according to the ryot's means and power of payment: a single man half a rupee, a married man a rupee, and so on; and the Kulkarnis levied two annas a holding in addition to grain fees.

The whole tendency of all these but the first was to check instead of fostering industry and labour. The rates were apparently not heavy, but none of the people were in good condition.

Under Mr. Tytler the lands of all the better kinds of dry-crop, rice, and garden were minutely measured, classified, and assessed. Poor and hilly lands not admitting of measurement were leased in a lump to the people of each village, each individual having his own holding and payments defined by the settling officer, and recorded in a separate lease, signed, and given when the rates were fixed.

The 110 villages were divided into three groups. The first held forty-four, which had as nearly as possible all arable land classified and assessed separately. The second held thirty-three villages, in which all rice land was alone measured separately and classified; and the third had thirty-three villages, in which the rice land was measured into fields but not classified. The rates were (1), *ukti*, or round sums imposed on all lands incapable of measurement in each village; (2), rice land rates; (3), dry-crop rates for lands capable of measurement; and (4), garden rates. The term of the lease was limited to five years. The rice land, in eight classes, bore rates from Rs. 2½ to 12a. The dry-crop had nine classes, varying from R. 1 2a. to 4a. The 216 acres of garden land were divided into twelve and five classes, according to whether it was channel or well watered. In the former Rs. 7½, and in the latter Rs. 2½ were fixed as the maximum, the average on the former being Rs. 2 11a. 1p., and in the latter Rs. 2 7a. 8p. The new rental exceeded the average collections of twenty-nine years by Rs. 5,180, or as Rs. 27,480 is to Rs. 22,300. The probable collections were estimated at Rs. 23,864 for 1848-49. The rates were sanctioned by Government in January 1849.

At the time of the first settlement Ahmadnagar contained fifteen

subdivisions, six of which now belong to Násik, under which the details of their settlement have been given. The remaining nine were settled between 1848 and 1853, with general results as follows :—

Subdivision.	Old Rental.				New Rental.			
	Year.	Collec- tions.	Year.	Collec- tions.	Year.	Collec- tions.	Year.	Collec- tions.
		Rs.		Rs.		Rs.		
Akola - - -	1818-48	50,000	1846-47	57,903	1848-49	40,600	1849-50	42,000
Sangamner - -	1818-48	54,000	1846-47	58,131	1848-49	35,000	1849-50	44,000
Rahuri - - -	1818-19	59,952	1848-49	52,888	1849-50	41,405	1850-51	55,000
Nevasa - - -	1818-51	1,01,524	1850-51	1,15,111	1851-52	69,067	1852-53	98,501
Karda - - -	1814-51	1,21,644	1850-51	1,02,014	1851-52	71,833	1852-53	1,03,704
Ahmadnagar -	1818-51	80,260	1850-51	81,397	1851-52	52,329	1852-53	67,393
Korfi - - -	1818-52	69,257	1851-52	74,309	1852-53	55,161	1853-54	70,000
Sivgaon - - -	1818-52	42,354	1851-52	45,013	1852-53	32,596	1853-54	40,000
Jambhed - - -	1818-52	55,504	1851-52	54,017	1852-53	36,082	1853-54	45,000
Total - - -	—	6,34,503	—	6,42,963	—	4,15,833	—	5,65,598

A settlement was introduced into the plain (*deshi*) villages of Akolá and Sangamner in 1848. Akolá was the more western of the two, and its *deshi* portion, with a large part of Sangamner, lay between two of the eastern spurs of the Sahyádris range. The two subdivisions had on their north Sinnar (Násik), on the south Junnar (Púna), and on the west the Sahyádris and Igatpuri (Násik). There was a marked difference of climate. The neighbourhood of the hills saved Akolá from droughts, but Sangamner, lying to the east, sometimes suffered severely from want of rain. The proportion of early and late crops was as two to one in Akolá, and as three to two in Sangamner. The average acre rate had been over a rupee, which in both fell till about 1836-37, after which there was a slight rise. The rates of villages in both were lowered from time to time as the excess of the old assessment was discovered by the local authorities. In 1836-37 the rates of forty-four villages in Sangamner were lowered at once. This was immediately followed by increased cultivation. In the ten years ending in 1827-28 tillage rose from 52,770 *bighas* to 55,921 in the nine years ending in 1846-47, and collections from Rs. 51,670 to Rs. 53,640. In Sangamner the rise in *bighas* under cultivation was from 69,506 to 96,286, and in collections from Rs. 55,960 to Rs. 61,030.

Survey operations began in 1845 and were completed in 1847. As the country was much cut up by ravines, and there was a

difference in depth of soil in every field, both measurement and classification of soils was unusually difficult.

The fifty-six Akolá villages were divided into three groups of twenty-eight, twenty-five, and three villages, at maximum rates of Rs. 2, Rs. 1½, and R. 1 8a. respectively. In garden land the rates already in force in Chándor were adopted, viz.:—For channel-watered a maximum of Rs. 8, and minimum of Rs. 3; and for well-watered, from Rs. 4 to Rs. 2.

As the grouping of villages for maximum rates according to climate and markets had not at this time become a distinctive feature of the Survey settlement, the above grouping was probably based generally on soil-classification, as in Sangamner, where the dry-crop rates were nine in number, ranging from Rs. 1½ down to 3a., to suit the nine classes of soil. The garden land in Sangamner, which was entirely well-watered, was assessed as in Akolá.

The following statements show the general result of the settlement in the two subdivisions:—

AKOLÁ.

Total Villages, 56.

Former Gross Rental (*kamál*), Rs. 83,930; Former Collections plus Village Officers' Grain Fees, Rs. 52,050; Survey Total Assessment, Rs. 55,470; Average Old Rate, exclusive of Fees, R. 1 0a. 4p.; New Average, inclusive of Fees, 12a. 5p.; Decrease on Tillage of 1846-47, 19½ per cent.

The total assessment under the new was thus a reduction of nearly 34 per cent. on the old Mahratta *kamál*, or nominal rental.

SANGAMNER.

Total Villages, 104.

Former Gross Rental, Rs. 1,71,690; Former Collections plus Grain fees, Rs. 56,700; Survey Total Assessment, Rs. 71,780; Average Old Rate, exclusive of Fees, R. 1 1a. 3p.; New Average, inclusive of Fees, 8a. 3p. Decrease on Tillage of 1846-47, 10½ per cent.

The new total assessment was a reduction on the old Mahratta *kamál*, or nominal rental, of 58 per cent.

The following shows the acreage, assessment, and average rate of dry-crop and the two descriptions of irrigated land :—

	Akola.			Sangamner.		
	Area.	Assessment.	Average per Acre.	Area.	Assessment.	Average per Acre.
	Acres	Rs.	Rs. a. p.	Acres.	Rs.	Rs. a. p.
Dry crop - - -	67,739	51,648	12 2	135,604	65,274	7 8
Channel-watered land	536	1,849	3 7 2	—	—	—
Well-watered - -	724	1,976	2 11 8	2,460	6,508	2 10 4
Total - - -	68,999	55,473	12 10	138,064	71,782	8 2

RÁHURI.

The subdivision of Ráhuri was the next to come under settlement, in 1849-50. It had Pátoda (Násik) to the north, Nevása to the east, Karda and Ahmadnagar to the south, and Sangamner and Sinnar (Násik) on the west. It had 125 villages, 100 of which were under direct Government management, and the rest either wholly or partially alienated. The subdivision had suffered much in the Native wars before British rule. The land measures had been changed at various times to suit the convenience of the Governments for the time being, but the last general settlement of any importance was that when Náro Bápuji Nagarkar was Subehdar in 1759-60, when the land was measured and the size of the *bigha* adjusted to the different descriptions of soil, thus making the *bigha* a measure of quality and not of quantity.

From 1802-3 till 1818 the Mahratta farming system destroyed all traces of regular measures and assessments, and when British rule was introduced in the latter year it was found impossible to trace and restore the original divisions of the village lands. Before 1825 it was the custom in doubtful cases to measure a holding, and if its extent in *bighas* was found to exceed that recorded in the village papers, the excess was assessed at the usual rates. This naturally did more harm than good, as the new *bigha* was a fixed quantity, and the old varied with the quality of the land.

In 1825, when Mr. Pringle's survey was about to be introduced, the aggregate area of all the holdings in each village was compared with the total (*rakba*) of its land, and where they did not tally the excess or deficiency was recorded in the village papers. No extra assessment was, however, levied on this account, and the measure had no practical result. No change was effected by this old survey, which did not last long, and only a few villages were measured and classified under it.

In 1833 field registers were prepared, but no general measurement was made at any time, and till 1849 the revenue officers had no proper data on which to frame the true estimate of each man's holding. In the meanwhile the rates nominally in existence during Mahratta rule were continued. In 1836-37 and subsequently these were lowered at different times, some of them by as much as one-fourth; but the reductions failed to improve the condition of the subdivision. The average assessment in the thirty years ending in 1848 was 13a. 3p. the acre. This was making allowance for included portions of waste land in fields, and in many cases people probably held more land than they were debited with in the accounts. Making allowances for hereditary officers' fees, and the assessment of garden lands included, dry-crop lands probably had paid not more than 13 or 14 annas the acre.

Throughout the whole ante-Survey period (1818-1849) statistics of tillage area and remissions show that the subdivision was much reduced and impoverished. In the thirty years ending in 1848 the average area under cultivation was about 61,000 out of 200,000 acres; it never amounted in a single year to half the arable area. At the time of settlement Ráhuri was in a worse condition than any subdivision hitherto settled. The people had little capital of any kind. There were only 8,475 working bullocks, proportionately less than that in any other settled subdivision, and there was less land used for garden and superior cultivation than in any other but Pátoda. The manufactures were of an inferior description, and of limited amount. Trade was confined to the export of grain and sheep and the import of the few domestic articles the villagers required. Amidst the general poverty only the Márvári (money-lender) thrived. Few ryots could bear the

loss of a bullock, or any ordinary calamity, and in a bad season most were forced to leave and seek work in Bombay in order to live.

There was only one leading road for traffic within the limits of Ráhuri, viz. that from Ahmadnagar towards Násik and Málegáon, but that even, in some places, was bad. Merchants resident at Belápur, Ráhuri and Vámbori bought most of the local produce for export to Nágpur, Púna or Bombay. Of the 101 Government villages a maximum dry-crop rate of R. 1 8a. was proposed for seventeen, one of R. 1 6a. for thirty-three, and one of R. 1 4a. for the remaining fifty-one. The average old dry-crop rate from 1825-26 to 1846-47, as far as this could be ascertained from unreliable village records, had been 13 or 14 annas. The Survey rates gave an average on the cultivation of 1847-48 of 11 annas, and on the entire arable area of 9a. 6p. There were 2,170 acres of garden land, watered from 949 wells; except in bad years the profit of this kind of cultivation was small. The maximum proposed was Rs. 6, with an average of Rs. 2 2a. 8p.; the proceeds were Rs. 4,720, or Rs. 390 over the collections on garden land for 1847-48.

The following shows the general result of the new settlement:—

Villages, 101.

Past Collections of 1825 to 1847, Rs. 54,923; Collections of 1818 to 1848, Rs. 97,210; Survey Assessment, Rs. 1,20,000. Increase, 23·4 per cent.

NEVÁSA.

The subdivision of Nevása was next settled, in 1851-52. It lay to the east of Ráhuri, and was bounded on the east by Shivgáon, on the north by the Nizám's territory, and on the south by Ahmadnagar. The settlement affected 149 villages, the remaining seventeen being either wholly or partially alienated. According to tradition Nevása, under the old Hindu Government of the country, had been highly civilized and prosperous, but had suffered severely in the wars between the Mahrattas and the Nizám, and subsequently in the disputes between the Mahrattas them-

selves. Plundering Bhils and the Pendhâris, with the famine of 1804, combined to complete its ruin, so that only twenty-one villages remained inhabited and the country became covered with brushwood.

Before the establishment of British rule the revenue management had been as unsatisfactory as in the remainder of the Peshvâ's territories. It was traditionally said to have been settled by Malik Ambar, but it was doubtful whether the *bigha* rate (*bighavni*) found in existence, which was continued up to the settlement of 1852, was introduced by him or by one of Shâh Jehân's officers, to whom the kingdom was entrusted on the break-up of the Nizâm Shâhi kingdom in 1636. The *rakba*, or total area of each village, was said to have been ascertained partly by measurement and partly by estimate, the size of the *bigha* sometimes varying even in the same village. The *tankha* was supposed to be Malik Ambar's gross rental, and was alleged by the hereditary district officers to have been equal to one-fourth of the gross produce in kind converted into money on an average of past prices. The Mahratta gross rental was called the *kamâl*, and *tasfir* was said to be the difference between the Mussulman and Mahratta rentals. Nâro Bâpuji in about 1759, amongst other reforms, introduced the *bigha* that varied in size with the quality of the soil. Before Bâjirâo's farming system was introduced the ryots were dealt with directly; but after it the usual chaos was found to exist: thenceforward not any particular area tilled, but the crops stacked and stored were considered the best criteria of the power of a village to pay revenue, although yearly returns continued to be made by the village officers as a matter of form.

In *mirâsi* lands the rates were not always changed, but in others temporary rates or leases were given to get the lands cultivated, and *pattis* or cesses were levied in addition.

In the year after the commencement of British rule, the Mahratta *kamâl*, long virtually abolished, was assumed to be that by which the future revenue collections were to be adjusted, and the village officers were required to give statements of the rates leviable per *bigha* in each holding. Few authentic records were forthcoming, and the rates adopted were mostly arbitrary. In eleven villages *mundâbandi* (lump assessments on entire holdings) were

found to prevail. Garden rates varied from Rs. 3½ to R. 1. In some villages there was only one rate, and in some the garden lands bore only dry-crop assessment.

In 1836-37 the dry-crop rates in fifty-eight villages and those of some holdings in others were lowered by about 28 per cent. The garden rates were not changed, but in forty-six villages a readjustment of the *bighas* under each well was made, and a reduction thus effected. No systematic attempt at a general revision of rates was ever made, but partial reductions or remissions were allowed where it was found the fall in prices had made the weight of assessment too heavy.

In 1827-28 the lands of 130 villages were measured under Mr. Pringle's Deccan Survey, but the measurements were not used, and up to 1833-34 no proper detailed field-registers were prepared. When they were then made out, the boundaries of holdings were not ascertained by actual inspection in the field, and no measurements were made to fix the area of each holding. They were thus very inaccurate, and in the new Survey many of the fields could not be identified. It had always been the custom under British rule to allow the partial cultivation of holdings. This caused great confusion in the accounts, and made it impossible to ascertain accurately the actual extent of cultivation. The portions left waste were roughly estimated, and the assessment remitted.

During the first years of British rule no attempt was made to check this, but after 1833-34 a test was taken by the Mám-latdár's establishment, assisted by the hereditary district officers, or, in case of suspicion of fraud, by the Collector or his assistant.

The remedial measures alluded to above had little beneficial result, and from Rs. 1,60,720 in 1847-48 the revenue fell to Rs. 82,150 in 1850, or nearly 50 per cent. It had never been possible to collect the full nominal assessment, notwithstanding the remissions freely given; and although the land was fertile, not half of it had been under tillage for many years. Such was the state of affairs when the Survey operations commenced. The local trade was inconsiderable, but there was a large through traffic, of cotton from Berár by the Jeur Pass to Bombay, and of salt and other goods from the coast inland. In addition to Nevása there were about eleven market towns, and about half the grain

of the country was exported. The local manufactures were inconsiderable.

The population of Nevása, at 3,268 souls, was the largest, none of the other towns containing over 1,000. The people were somewhat better off than those of Ráhuri and Sangamner. A few ryots had farms of 200 acres, and had thirty or forty bullocks, but were mostly deeply in debt, the average debt not being less than Rs.100. Most were Mirásdars, or hereditary occupants, 10,520 out of 17,163 Survey numbers being found to belong to them. Three maximum rates of assessment, viz., R. 1 4a., R. 1 2a., and R. 1, were proposed for three classes of villages, seventeen, ninety-three, and thirty-eight in number respectively. A maximum of R. 3 was fixed for garden lands, of which 2,947 acres were watered entirely from wells. The average, Rs. 2 2a. 7p., was R. 1 10a. 8p. less than the old average. The total Survey rental, inclusive of waste, exceeded the collections under the old system by 45 per cent.

The following statement gives the details:—

Villages.	Former System.		Survey.							
	Assessment.	Acre Rate.	Land under Tillage.			Waste.		Total.		
			Area.	Assessment.	Acre Rate.	Area.	Assessment.	Area.	Assessment.	
Rs.	Rs. a. p.	Acres.	Rs.	a. p.	Acres.	Rs.	Acres.	Rs.		
17	19,100	11 4	26,965	12,338	7 4	22,770	9,135	49,735	21,523	
93	1,15,235	1 1 7	105,050	62,270	9 6	103,473	42,197	208,523	1,04,467	
38	27,452	1 1 0	25,811	13,013	8 1	34,766	11,942	60,577	24,955	
148	1,61,787	1 0 5	157,826	87,671	8 10	161,009	63,274	318,835	1,50,945	

The following shows the assessment on the different descriptions of Government land in the subdivision:—

Dry-cropp: Area, 320,715 acres; Rs. 1,46,774.

Garden: Area, 2,976 acres; Rs. 6,438.

Total: Area, 323,691 acres; Rs. 1,53,212.

Rs. 3,176 on 7,699 acres were also assessed as quit-rents.

The hereditary officers did not collect grain fees from the ryots, and all abolished money levies were included in the Survey rates, in order to prevent their direct levy in future.

PATODA.

Karda, the largest subdivision in the Collectorate, was the next settled, in 1851-52. It was bounded on the north by Sangamner and Ráhuri, on the east by Ahmadnagar and Korti, and on the west and south by Junnar, Pábal, and Bhimthadi in Púna. It held 145 Government villages, with twenty-seven partially and forty wholly alienated. There had been a good deal of transfer of villages backwards and forwards between Púna and Ahmadnagar, and Karda was found in 1852 to be too large for proper management. It had been a good deal plundered by Holkar and others at the commencement of this century, but had not suffered so much as Nevása.

In 1818, when it came under British rule, its revenue system was in an equally chaotic state. The size of the *bigha* varied more than in Nevása, but it was on the whole larger than elsewhere. The old assessments were very irregular. The *mundábandi* and *bighavni* systems prevailed or were renewed, and the usual patch-work system of reducing rates here and there where they seemed to press most heavily was adopted by the Collector, but apparently not with such good effects as in Nevása.

In the early years of British rule the collections in Karda in proportion to its resources were so much higher than in Nevása that, in spite of the later remissions, the revenue never recovered in the former to the same extent as in the latter, and cultivation was never so high as in the first five years after the accession of British power. The Survey officers were of opinion that even with moderate assessments Karda would not speedily recover its proper condition. Communications were inferior, and of hardly any use for wheeled traffic. In the matter of markets the southern part of Karda was better off than Nevása, on account of its nearness to Púna and Ahmadnagar. In the north the villages were unfavour-

ably placed, having no large markets near, and their means of communication with other quarters not being good. The local manufacture of a little coarse cotton-cloth and a few blankets was unimportant. Sirúr, on the high-road to Púna, and the headquarters of the Púna Horse, was the chief market, containing a fair number of traders in good circumstances, some of whom exported grain in large quantities.

Of the 25,152 Survey holdings, 14,603 were *mirásí* and 10,549 *gatkuli* (hereditary and those that had lost their hereditary holders), and of the former 5,856 were tilled by the Mirásdars themselves. 3,606 were waste.

The 145 Government villages were arranged in six groups for maximum dry-crop rates ranging from R. 1 8a. to 14a. The twelve that formed the first class lay on an elevated table-land on the hills running through the centre of the subdivision. They had a superior climate; their position with reference to Ahmadnagar, Púna, and Sirúr was very good, and they yielded specially valuable wheat. Thirty-one villages with a maximum dry-crop rate of R. 1 6a. formed the second class. The lands of seventeen of them lay close to the north of the group of hills of which mention has been made. Their climate was as good as that of the first class, but their position with regard to Púna and Sirúr was not so good. The Mahálkarí's station of Vásunda was included in them, and the remaining fourteen lay to the south or south-west of the table-land mentioned, and included the Mám-latdár's station of Párner. Their position for markets was good, but the climate not so favourable as that of the first group. On the other hand, water for irrigation was plentiful.

Forty-three villages, with a maximum of R. 1 4a., formed the third class. Five of them, on high ground to the north of the Mula river, had an equally good climate as the first class of Ráhuri, but their position with regard to markets was inferior. Their produce had to be disposed of in Ráhuri and Sangamner. The lands of the remaining thirty-eight were partly hilly, and they lay to the south and south-east of the second class. They had a good position with regard to markets, but their climate was inferior to that of the more northerly villages. Forty villages, with a maximum of R. 1 2a., formed the fourth class. Ten were in the valley

of the Mula. Their climate was good, but they were out of the way of markets. Water was scarce in some villages, and in others cultivation was difficult, as the arable lands were mostly on plateaux, while the villages lay in hollows. The remaining thirty villages were similarly situated to the third class, lying to the north, except that the climate was bad. The fifth class consisted of sixteen villages, with a maximum of R. 1. Ten were in the valley of the Bhíma, and their climate was inferior to that of the more northerly groups. The remaining six villages were in the south-east, near the hills. They were not so well situated, either as regards climate or markets, as the other villages of this class. The sixth class consisted of three villages in the extreme south, in the valley of the Bhíma, with a very uncertain climate and a stiff soil, generally requiring much moisture to be able to be worked.

From additional experience acquired in the course of this settlement, the classes of eleven out of the 145 villages were changed, but in other respects the rates proposed were found suitable and were introduced. The garden land of Karda was partly channel-watered. In some villages the garden husbandry was superior, and the nearness of Púna and other large towns admitted of a ready sale for garden produce. For ninety villages in the centre, favourably situated for markets, a maximum well-water rate of Rs. 4 was proposed, and for the remainder, in the north and south, not so well placed, one of Rs. 3. These were higher than the Ráhuri and Nevása rates. As a maximum a channel-water rate of Rs. 6 was adopted, and for lands watered from both channels and wells intermediate rates.

In 1852 there were 5,133 acres of garden land, the assessment of which came to Rs. 13,400, an average of Rs. 2 9a. 9p. the acre. A comparison with the old average rate is impracticable, on account of the great irregularity of the former assessments.

The alluvial or *dheli* lands on the banks of the Bhíma were assessed at rates varying from Rs. 2 to R. 1. On seventy-eight acres of this land the average Survey rate was R. 1 7a. 7p. A small extra rate of from 3a. to R. 1 was imposed on land watered from dams during a portion of the year, which were thus enabled to raise superior crops.

The general effect of the settlement was to lower the revenue

on land under cultivation from Rs. 1,69,583 to Rs. 98,236, or 42 per cent., and the average acre rate from 11a. 11p. to 6a. 11p., as shown below :—

Class.	Vil- lages.	Old Assessment.		Survey.							
		Assess- ment.	Ave- rage.	Cultivation.			Waste		Total.		
				Area.	Assess- ment	Ave- rage.	Area.	Assess- ment.	Area.	Assess- ment.	
		Rs.	a. p.	Acres	Rs.	a. p.	Acres	Rs.	Acres.	Rs.	
1	12	12,393	15 5	12,827	5,198	6 10	3,212	1,004	16,039	6,502	
2	31	49,270	14 0	56,174	28,803	8 2	25,487	8,659	81,661	37,463	
3	42	46,933	12 0	62,124	27,041	6 11	32,269	11,070	94,607	38,111	
4	40	43,901	9 9	71,936	25,073	5 9	55,270	15,431	127,206	41,107	
5	16	11,045	11 0	20,368	8,496	6 11	29,127	9,456	49,495	18,352	
6	3	3,039	13 7	3,583	2,325	10 5	2,000	473	5,583	2,798	
Total	145	1,69,583	11 11	227,316	98,236	6 11	147,365	40,090	374,681	1,44,332	

The effects of the Survey varied greatly in different parts, in consequence of the irregularity of the old assessments, as well as from reductions in earlier years having reduced them as low as they needed relief :—

Survey 1851-52.

Old rates: Average, 1818 to 1851, 121,648 acres; Collections, 1850-51, Rs. 1,02,014.

Cultivated: Area, 227,316 acres; Rs. 98,236; Remissions, Rs. 24,404; Collections, Rs. 73,833.

Waste: Collections, Rs. 5,863.

Total: Collections, Rs. 79,696.

Collections of 1852-53 under the Survey.

Cultivated: Area, 251,728 acres; Rs. 1,04,646; Remissions, Rs. 942; Collections, Rs. 1,03,704.

Waste: Collections, Rs. 5,282.

Total: Collections, Rs. 1,08,986.

The result of the introduction of the new rates thus seems to have been an immediate rise, in the first year of their administration, of nearly Rs. 30,000 over the collections of the year of settlement. The remissions, too, suddenly dropped to a nominal sum; but no argument can be based on this, as the remissions in

the year in which new rates are introduced consist, as a rule, of little more than the difference between the old and the new rates.

AHMADNAGAR (NAGAR).

In the same year the new settlements were introduced into the subdivision of Ahmadnagar, usually called Nagar for brevity's sake. At the time of settlement it had on its north Ráhuri, on the north-east Nevása, on the east the Nizám's territory, on the south and south-west Karda, and on the south-east Korti. Of its 109 villages, eighty-five were Government, ten partly and fourteen wholly alienated. It had passed through many changes between 1818 and 1852, and in the eighty-five villages appear to be included two alienated that lapsed before and three that lapsed after the settlement in the latter year. The *tankha* is supposed to have been fixed by Malik Ambar, as elsewhere. Náro Bápuji carried out reforms here also, and introduced the *bigha* varying according to the quality of the soil. He appears to have confirmed the *mundábandi* tenure where he found it in existence.

The total rental imposed by the British at the commencement of their rule seems to have been an attempt to restore Náro Bápuji's assessment, which was higher than the Mussulman *tankha*, and than the rates in force in the disturbed times before the British conquest. These assessments proved very high, and the country became rapidly ruined. Then commenced the partial lowering process described under other subdivisions. The dry-crop rates were lowered on the average about $3\frac{1}{2}$ a. in the rupee, and garden rates about $5\frac{1}{2}$ a. In some cases the *mundábandi* system was partially re-introduced. The heavy rates had resulted in Nagar, in 1832-33, in a fall of revenue, from 1821-22, from Rs. 1,31,000 to Rs. 23,000. Between 1833-34 and 1850-51 the revenue did not fluctuate so greatly as in Karda, owing, possibly, to the abolition of transit duties and other oppressive taxes. But in place of any advance in prosperity there was a rapid fall in the two or three years preceding. There could be no doubt of over-

assessment, if this could take place in the immediate neighbourhood of a large and thriving city like Ahmadnagar.

Several lines of traffic passed through the subdivision, but there were no made roads. Ahmadnagar was the head-quarters station of the Artillery and a regiment of Native Infantry, and had a population of nearly 30,000 of its own, with 1,322 hand looms in it, in addition to a few others in the surrounding district. There was a large manufacture of carpets and brass cooking-vessels. There were six other market towns, but none of them of any importance except Vâlki, which was the largest cattle market in this part of the Collectorate. The people on the whole were not well off, but many found employment about the cantonment and in hiring out their cattle with themselves as drivers for the transport of merchandise. Some of the poorer classes made money by providing firewood for the camp, near which the owners of gardens were especially flourishing. Of 14,487 Survey numbers, 9,134 were held by *mirâsi* ryots, and 5,353 were deserted, alienated or barren.

The Nagar villages were better off with regard both to climate and markets than those of Nevâsa, and could pay a higher dry-crop assessment. For dry-crop assessment three classes were arranged. The first, of forty-six villages, with a maximum of R. 1 6a., was in the centre of the subdivision. Some of the villages were close to the town, and those that were not were on main lines of road. These were the richest in garden lands. The next class, of twenty-five villages, with a maximum of R. 1 4a., were inferior in position for markets to those of the first class, and three had not a good water-supply. Four of the eleven that formed the third class had a good climate, but were badly placed for markets. The remaining seven were in the extreme south near Korti, had a poor climate, and were far removed from Ahmadnagar. The maximum dry-crop rate of this group was R. 1 2a. Most of the garden lands were watered from wells, but some from dams. The lands nearest the town had a maximum garden rate of Rs. 6; others not quite so near one of Rs. 5; the remaining first and second class villages one of Rs. 4; and those of the third class were lowered to Rs. 3. The highest channel-water rate was fixed at Rs. 6, except in one valuable garden (the Fara garden), where it

was Rs. 10. As there were many skilled garden cultivators near the town, there was no doubt that, with a better supply of water, much more garden produce might be raised.

The average rate on 4,802 acres came to Rs. 3 2a. 3p., the assessment being Rs. 15,090. The old average was estimated at Rs. 4 14a.

The results of the new rates were as follows:—

Villages.	Old Assessment		Survey,					
	Assessmt.	Average.	Cult Area	Assessmt.	Average	Waste.	Total.	
	Rs.	Rs. a. p.	Acres	Rs.	a. p.	Rs.	Rs.	
46	66,710	1 3 5	54,962	40,305	11 9	15,402	56,107	
25	28,807	11 8	31,152	17,545	9 0	14,178	31,763	
11	4,643	9 4	7,930	3,384	6 10	3,581	6,965	
82	1,00,160	1 1 0	94,244	61,274	10 5	33,561	94,835	

Compared with former assessments the results were as follows:—

Years.	On Cultivation.				Waste.	Total Collections.
	Area	Assessmt	Remissions.	Collectns.	Collectns.	
	Acres	Rs	Rs	Rs	Rs.	Rs
1819-1851	92,907	97,797	17,537	80,260	5,465	85,725
1850-51	77,968	84,728	3,311	81,397	7,010	88,407
Survey						
1851-52	94,244	61,274	8,945	52,329	5,772	58,101
1852-53	1,09,461	67,912	519	67,393	5,419	72,812

The average acre rate before the settlement was estimated at 13a. 10p. The Survey acre rate on the whole arable land came to 8a. 8p., and on the cultivation of 1851-52 to 10a. 5p., or a reduction on past payments of about 25 per cent. The returns for 1852-53, the year after the settlement, showed an immediate increase of 15,217 acres in cultivation, and of Rs. 14,711 in the collections, only nominal remissions remaining.

KORTI.

In February and March 1853, the subdivision of Korti was settled. It was bounded on the north and north-west by Karda and Nagar, on the south-east by Karmála (Sholápur), on the south-west and west by Bhímthadi and Indápur (Púna), and on the east and north-east by the Nizám's territories. It held 137 villages, of which 106 were Government and fourteen partly and seventeen wholly alienated. In the beginning of the century it had suffered so severely from the depredations of Holkar and others that only the large towns remained inhabited. The maximum Mussulman rental (*tanekhá*), was, as usual, attributed to Malik Ambar, and the *kamál*, that of the Mahrattas, to Náro Bápuji. All came under the Mahratta farming system.

The British management in its earlier periods was similar to that in other subdivisions. The lands were measured by Mr. Pringle's establishment in 1826-27, and some classification was done, but no settlement was attempted. Shortly after British accession forty-seven dry-crop rates, varying from R. 1 6a. to 3a. 9p. per *bigha*, were introduced, and thirty-six garden rates, from Rs. 5 to 10½a. The *bighas* were in most cases, however, probably measures of quality rather than of quantity, as there was frequently but one dry-crop and one garden rate for the whole of a village. In eighty-eight villages the Collectors, between 1834 and 1837, reduced the dry-crop rates by about 1a. 7p. in the rupee, and the garden rates of four villages about 4a. 2p. in the rupee. The fluctuations of tillage and collections had been greater than in Nagar and Nevása, mostly on account of the uncertainty of its rainfall, but they had varied very similarly to those of Karda. In Korti the fall between 1821 and 1833 had been 51 per cent. of cultivation and 88 per cent. of collections, compared with 39½ and 72½ per cent. in Karda. Between 1842 and 1845 Karda collections fell off 66 per cent., and those of Korti 75 per cent.; and between 1847 and 1849 the former lost 35½ and the latter 55 per cent. The average yearly remissions in Karda were Rs. 34,540, or 22 per cent. of the revenue, and in Korti Rs. 31,560, or 31½ per cent.

There was no made road in the subdivision, but several of the country tracks were passable for carts. There were three prin-

cipal lines of traffic. The first came westwards from Bárśi and Karmála, through the centre of the subdivision towards Púna and Bombay; and the second from the Bálághát country and Kharda in Jámkhed also towards Púna. The third led from north-west to south-east from Nagar to Karmála and Sholápur. Of five market towns, Srígonda (or Chambhárgonda), belonging to Sindia, a large and wealthy place, was the chief. The manufacture of coarse cloth was comparatively unimportant. The general poverty of the inhabitants did not admit of a very brisk trade. A good many people left the subdivision, especially in bad years, to look for employment elsewhere. A few had sheep and cattle, and were fairly off, but the majority were poor. Of the 23,058 Survey numbers into which the land was divided, 7,854, or not quite a third, were held by Mirásdars and 2,636 were waste.

The 106 Government villages were thrown for dry-crop maximum rates into three groups, at R. 1, 14s., and 12s. respectively. The first, of fourteen villages, was in the valley of the Sína, close to those of Nagar. They were the nearest to the market of Nagar, and their climate was superior to that of the villages in the Bhíma valley. Nineteen villages were placed in the second class. Of these six were in the Bhíma valley and near the R. 1 group of Karda. Their climate was rather better than that of the villages farther south, and they were near Srígonda and well placed for other outside markets. The remaining thirteen were in the valley of the Sína near the villages of the first class. The third class consisted of seventy-three villages; nineteen of these adjoined some of the second class, but they were farther both from Nagar and Púna than the villages in the Bhíma valley.

The remaining fifty-four villages were in that valley, and had a very inferior climate, some of them suffering from a want of water, but were fairly well placed for the Púna market. Lower dry-crop rates were fixed than for Karda or Nagar, as its climate on the whole was worse, as well as its situation with respect to markets, and its husbandry in some respects also inferior. It was one of the worst subdivisions in the Deccan, and could not bear a heavy assessment. The garden lands were almost entirely well watered (*motasthat*), and the crops inferior except in a very few

villages. A highest rate of Rs. 3 only was imposed on some villages near markets where vegetables and garden produce could be disposed of, and in others one of Rs. 2½. For lands watered from dams (*bandhórú*) a maximum of Rs. 5 was imposed, the average came to R. 1 13a. 7p., the old average having been Rs. 2 14a. 3p. Alluvial (*dhehú*) lands on the banks of the Bhíma had a maximum of Rs. 1½, and the average was R. 1 1a. 5p. The general result of the new assessment in the three groups of villages is shown in the annexed statement

Vil- lages.	Former Assessment		Survey								
	Assess- ment.	Ave- rage	Cultivation			Waste.		Total			
			Area	Assess- ment	Ave- rage	Area	Assess- ment	Area	Assess- ment.		
	Rs.	a	l	Asses.	Rs.	a	l	Acres	Rs.	Acres	Rs.
11	9,401	7	9	1100	7,100	5	10	1,217	900	32,503	11,031
19	20,924	8	0	1180	1207	0	1	28,180	7,000	70,051	19,967
73	71,199	9	0	10,879	11,12	1	9	97,880	22,084	28,259	64,010
106	1,09,587	8	5	102,880	62,018	11	13,782	3,020	41,162	95,068	

The immediate lowering of demand was thus Rs. 47,539, or 43 3 per cent. below the collections of former years; but a margin for probable recovery was left in the large area of arable land, 138,783 acres, assessed at Rs. 33,020, still unoccupied. The average assessment under the old system was about 6 annas; on all the arable land the Survey rate was 4a. 6p. and on the cultivated area of 1852-53 4a. 11p., a decrease of 1a. 1p. or about 18 per cent. on past payments. The following statement shows the details in different descriptions of land belonging to Government:—

Dry-crop: Area, 338,293 acres; Assessment, Rs. 89,755.

Garden: Area, 2,870 acres; Assessment, Rs. 5,313.

Total: Area, 429,459 acres; Assessment, Rs. 95,068. The total area here includes unarable land.

The fees of village officers, abolished as direct levies at the settlement, had amounted on the whole to about Rs. 6,030 per annum in addition to the ordinary assessments.

SHIVGAON.

In 1853 a revised settlement was carried out in Shivgáon. The Shivgáon subdivision lay in the Bhíma valley, and its villages were much intermixed with those of Nevása, by which, and Nagar, it was bounded on the west; on all other sides it was surrounded by the Nizám's territories. From the middle of the 18th century it had been held jointly by Sindia and Holkar; the share of the latter came to the British in 1818, but Sindia continued to hold his when the Survey was introduced. In the early years of this century it suffered from the Mahrattas, Bhíls, and Pandharis alike. Sindia, Holkar, and the Peshvá's posts, instead of protecting the people, appeared to have seized every opportunity of plundering them. The old Mussalman *tankhá* rental was found by the British in force, no Mahratta *kamál* having been fixed. The rude Mahratta revenue system prevailed, as elsewhere. In 1818-19 the heaviest old realisations were assumed as the proper standard, and proportionate rates were distributed over the several holdings, varying from Rs. 2 to R. 1 for dry-crop and Rs. 3 to Rs. 1½ in garden land. The dry-crop rates of fifteen villages were between 1834 and 1837 reduced by the Collector 20 per cent., and the garden rates in thirty-three about 53 per cent.

The *mundabandi* system was still in force in some places at the time of settlement. The accounts were in bad order; in all respects the revenue management had been the same as in neighbouring subdivisions. The assessment on the whole had been comparatively light, and the subdivision had comparatively prospered. The garden lands were richer, the fluctuations in revenue had not been so great as in Nevása, and the remissions, instead of 18 per cent., as in the latter, had been only 10 per cent. Between 1821-22 and 1824-25 the fall of revenue had been 21 per cent., between 1826 and 1833 41½ per cent., between 1842 and 1846 29½ per cent., and between 1847 and 1850 37 per cent., as compared with 36½, 53½, 49½, and 49 per cent. in the same periods in Nevása. But the assessment had been uneven, and out of 1,33,341 arable acres only 55,468 were occupied. It was not so well off for

markets as Nevása. A good deal of cotton weaving was carried on within it. There were fair markets both inside and near the subdivision, the chief of the latter being Páthardi and Bodegáon.

Of the 1,764 account holders (Khátedars) 1,148 were said to be in debt. Of 9,764 Survey numbers 6,844 were *mirási* holdings, and 2,212 were waste. For dry-crop maximum rates the Shivgáon 78½ villages were divided into four classes, with rates from Rs. 1¼ to 14a; these were the same as the Nevása rates except in the case of eight outlying villages in the north-east.

The first group, of eight villages, were in the south-east near the hills, a continuation of the corresponding Nevása group; it had a good climate and was near Páthardi. Thirty-nine and a half villages formed the second class; it was a continuation of the R. 1 2a. group of Nevása, lying to the north-east of the first class. Some of the villages in the hills were better off for climate, while those in the plain were the same for markets. Twenty-three villages with a rupee rate formed the third class, and eight with a rate of 14a. the fourth class. These villages had not so good a climate as the villages near the hills, and were also farther from markets. Some of them had been forsaken through the effects of over-assessment. In lands watered from wells the Nevása maximum of Rs. 3 was adopted, and lowered for nine villages not well placed for markets to Rs. 2½. For channel-watered lands, which were poor and of small area, a maximum of Rs. 5 was fixed, and gave an average of Rs. 2 1a. 2p.

The general results of the revised rates were as below:—

Villages.	Old Assessment		Survey.						
	Assess-ment.	Acre Rate.	Cultivation.			Waste.		Total.	
			Area.	Assess-ment.	Ave- rage.	Area	Assess-ment.	Area.	Assess-ment.
	Rs.	Rs. a. p.	Acres.	Rs.	a. p.	Acres.	Rs.	Acres.	Rs.
8	7,414	12 7	9,437	4,055	8 5	10,518	4,166	19,985	9,141
39½	28,422	13 8	33,169	19,835	9 7	29,626	11,931	62,795	31,766
23	16,586	15 5	17,242	9,335	8 8	26,042	8,317	43,884	17,652
8	2,036	1 1 0	1,918	992	8 3	1,759	1,595	6,677	2,587
78½	54,460	14 1	61,766	35,117	9 1	71,575	26,029	133,341	61,146

The comparative results were as follows:-

Years.	Cultivation				Waste.	Total.
	Area.	Assessmt.	Remissions	Collectms		
	Acres.	Rs.	Rs.	Rs.	Rs.	Rs.
1818-1852	55,468	47,297	4,943	42,354	1,667	44,021
1851-52	53,115	46,947	1,934	45,013	1,577	46,590
Survey:						
1852-53	64,766	5,117	2,221	32,896	1,120	34,016

The decrease on cultivation by the Survey in the year of settlement was Rs. 12,117, or not quite 27 per cent, while there was a probable margin of Rs. 26,029 from the cultivation of land still waste. Rs. 2,010 of extra levies on account of hereditary officers' fees were also absorbed in the assessment.

SIVGÁON.

The fifty-nine villages of the Sivgáon subdivision, received from Sindia in exchange for other villages in 1862-63, were settled in 1869 according to the general method of grouping adopted in the rest of the subdivision, but with slightly increased rates, which the intermediate rise in prices justified. The villages were intermingled with those of the original subdivision, and were grouped, with maximum rates, as follows:-

- 6 villages at a maximum of R. 1 6a. adjoining the old first group, the maximum of which was R. 1 4a.
- 15 villages to the south and east of the latter, and one on the Godávári, with the same maximum as the old first group.
- 16 villages at R. 1 2a. to the north and east of the old first group and on the Godávári.
- 22 villages in the south and south-east of the subdivision and — to the north of the old third group.

The general result will be seen from the following statement:—

Five years' average revenue, Rs. 63,513; Average of 1862-63 and 1863-64, Rs. 53,546; Remissions, Rs. 280. Year previous to

settlement, Rs. 74,579 ; Remissions, Rs. 351. New Rates on Dry-Crop, Rs. 58,874 ; On garden land, Rs. 4,086 ; Total, Rs. 62,960.

This was a decrease of Rs. 553 on the five years' average, and of Rs. 11,970 on the revenue of the year before the settlement. A great deal of waste land had already been taken up in anticipation of the settlement, and more was agreed to at the settlement. Rs. 68,201, the total assessment, inclusive of unoccupied waste, was Rs. 4,688 in excess of the five years' average, so that the actual deficit, when the whole of the waste land was taken up, would not be great. The rates were guaranteed for a period that would cause the guarantee to expire with that of the remainder of the subdivision.

JÁMKHED.

Jámkhed, the last subdivision of the Collectorate, came under revision in May and June 1853. It lay east of Shivgáon and south of Korti, and was formed of several detached villages or groups of villages, generally surrounded by the Nizám's territories, the largest lying in the valley of the Sína, at some distance to the north-east of Korti. It had seventy-five villages, of which fifty-nine were Government and ten partly and six wholly alienated. Most of the villages were acquired from the Peshvá in 1818-19, but it received other villages from time to time. Karmála (Sholápur) was transferred to Nagar in 1824-25, and re-transferred in 1826-27, and made into a separate subdivision in 1835-36. These villages are stated not to have come under the farming system, but to have been managed by Government agents.

Shortly after the accession of British rule rates were fixed in the same way as elsewhere. Twenty-four rates in dry-crop, varying from Rs. 2 to 4a., and in garden twenty-one rates, varying from Rs. 6 to R. 1 6a. *Mundábandi* still continued in two villages at the time of the settlement.

About 1836-37 the Collector lowered the dry-crop rates in eighteen villages about 24 per cent., and the garden rates in six about 46 per cent.; but, with the exception of these partial revisions, the system of revenue management remained the same as elsewhere. The assessment on the whole having been heavier

than in Shivgáon, the progress of Jámkhed had not been so satisfactory as in the latter. Remissions had been 14 instead of 10 per cent. Collections never rose so high subsequently as in the first years of British rule.

Between 1847 and 1852 there was a great decline in cultivation and collections. The comparatively large amount of capital in Jámkhed, and the profits derived by the ryots from other sources besides that of agriculture, enabled them fairly to keep up their cultivation. If the assessment had been fair, there was enough of farming capital to have kept almost all the arable land under tillage, whereas on an average 70,000 acres had remained waste, and there had of late years been a downward tendency.

The communications of the tract were fairly passable for carts except in the north. The villages were well placed for the markots of Pána and Ahmadnagar, and the thriving town of Karda, in the Sína valley, was frequented by traders from distant parts of the country. The former disturbed state of the country had induced the immigration of many moneyed and industrious settlers. There were 125 families of weavers in Karda, and 200 looms elsewhere. The circumstances of the Jámkhed ryots varied greatly. The majority were as poor as elsewhere, but many headmen and leading ryots of the Mánur region were well off, the Mánur hills affording good pasture. Some ryots tilled lands in the neighbouring Nizám's territory, and many profited from the residence of traders and money-lenders, who would under other circumstances have settled in that territory. Of 12,343 Survey numbers, 4,811 were held by Mirásdars (2,500 by themselves), and 745 were waste.

The fifty-nine villages were arranged for dry-crop maximum rates in four groups. The rates were similar to those in Shivgáon. They also corresponded with two Nagar and two Korti groups to a certain extent. The Northern Jámkhed villages had a better climate, but were worse off for markets. The Southern differed little from the neighbouring Nagar and Korti groups as regards either climate or markets.

Twenty-six villages, with a maximum of R. 1 4a. formed the first class. Of these three were in the high land called the Bálághát, and twenty-three were scattered in the hilly country between

the Bálághát and Shivgáon. Their climate was good, as well as the husbandry, and they did not feel the disadvantage of distance from large markets in consequence of the number of resident traders and manufacturers. Twelve villages in the Sína valley, immediately below the Bálághát, with a rate of R. 1 2a, formed the second class. Their climate was not quite so good as that of the first class. Their position with regard to markets was good, but they were hampered by transit duties in the neighbouring Nízám's territories. Eighteen villages scattered in the Sína valley, with an inferior climate and position with respect to markets, formed the third class, with a maximum of R 1; and three villages, with an uncertain rainfall and no peculiar advantages, formed the lowest class, with a maximum of 14a. The same water-rates, both in well and channel-watered lands, as in Shivgáon, were applied, and gave an average rate of R. 1 13a. 6p.

The following statement shows the detailed results :-

Villages	Former Rates		Survey.						
	Assess- ment.	Average	Cultivation.			Waste		Total.	
			Area.	Assess- ment	Ave- rage.	Area	Assess- ment	Area.	Assess- ment
	Rs	a p.	Acres	Rs	a p	Acres	Rs.	Acres	Rs
26	36,615	12 6	46,971	22,447	7 8	27,416	10,347	71,387	32,834
12	18,527	12 7	23,538	9,515	6 6	17,430	5,711	40,968	15,226
18	12,460	11 4	17,563	7,690	7 0	19,156	6,208	36,719	13,894
3	3,341	8 11	5,990	2,100	5 7	5,560	1,375	11,550	1,475
59	70,943	12 1	94,062	41,792	7 1	69,562	23,641	163,624	65,433

The comparative results were as follows :-

Year.	Cultivation.				Waste.	Total.
	Area.	Assessmt.	Remissions	Collectns	Collectns.	Collectns.
Old :	Acres.	Rs.	Rs.	Rs.	Rs.	Rs
1818-1852	90,044	64,500	8,996	55,504	1,217	56,721
1851-52	64,978	61,098	7,081	54,017	2,962	56,979
Survey :						
1852-53	94,062	65,433	—	—	—	65,433

The old collections averaged 9a. 10p., on which the Survey average 7a. 1p. showed a reduction of about 28 per cent. Rs. 2,730 in the shape of hereditary officers' fees were absorbed in the new assessment. The increase over the old assessment of the year before the settlement was Rs. 4,335 only, and over the average from 1818 to 1852 was Rs. 933; but there was a possible increase from the taking up of waste lands of Rs. 23,641.

The circumstances under which the Survey settlements came into operation in the Ahmadnagar Collectorate were not favourable, as, although the claims of the village hereditary officers had been absorbed in the new assessment, they were allowed to continue for some unexplained reason in the subdivisions settled before 1851. Notwithstanding this, the following statement shows an increase in cultivation and collections for the sixteen years ending in 1869 in the six south-east subdivisions:—

Subdivision.	Average of Former System.		Average of 1853-1869.		Average of 1864-1869		1868-69 Cultivation.	
	Acres.	Rs.	Acres.	Rs.	Acres.	Rs.	Acres.	Rs.
Nevasa -	129,602	1,01,528	275,735	1,36,109	303,321	1,44,197	305,521	1,47,555
Karda -	212,191	1,21,648	330,569	1,29,303	355,577	1,34,774	356,859	1,39,577
Nagar -	92,907	80,260	156,852	86,768	171,771	92,939	173,320	93,693
Korti -	185,361	60,257	309,877	84,256	336,107	93,827	338,305	94,181
Sivgaon -	55,408	42,354	113,133	54,645	118,173	57,537	121,701	58,900
Jamkhed -	90,044	55,504	146,908	59,432	161,089	61,401	162,325	64,796
Total -	765,574	1,70,551	1,333,074	5,54,513	1,47,338	5,91,975	1,458,040	5,98,102

Total area, 1,506,211—6,11,712.

This shows an increase in cultivated area in the sixteen years of 90 per cent., although in collections one of 27·1 only. This left arable waste to the extent only of 48,171 acres, or a little over 3 per cent. The decrease in remissions had been 96 per cent. Of those given nearly two-fifths were in 1853-54, described as a disastrous year of failure. 1856-57 and 1868-69 were also very bad years, regarding the latter of which it was reported that only under the Survey settlement could so little remission as 1½ per cent. have been managed with.

Korti made the most rapid progress, owing to the opening of the Puna and Sholapur section of the railway. The other subdivisions mentioned also progressed beyond the expectations of the Survey officers, owing to the rise of prices that had set in from 1862.

Between 1852 and 1870 there had been 1,630 new wells made in these subdivisions, representing an increase of about 4,000 acres in garden cultivation. The revenue was paid regularly and with ease. Land fetched from five to forty times the assessment. According to the Deccan Riots Commission, between 1848 and 1860 the condition of the district had in many respects entirely changed. Instead of large tracts lying waste, all arable land had been brought under the plough. Population and agricultural cattle of all kinds increased. The country was supplied with carts, and good roads abounded. Prices of produce and wages increased. Remissions became unknown, notwithstanding the large area of cultivation and heavier revenue to pay. Two railways traversed the district, and new capital was yearly invested in new wells and fresh cultivation. In the time of the American war a small cotton crop in a bad year was equal to a full crop under the old rate of prices. The demand for labour made it possible for a ryot and his family to earn in a fortnight the full assessment of an ordinary holding, and better credit enabled him to borrow sums far beyond the ordinary value of his capital.

Taking the whole Collectorate together, the general condition in 1882-83, compared with that of ten years before the Survey settlement, was as follows:—

	Area of Cul- tivation of Government Land.	Area of Arable Waste.	Remissions.	Collections.
	Acrea.	Acrea.	Rs.	Rs.
Ten years before Survey -	1,258,391	990,136	3,30,892	9,29,306
1882-83 - - - -	2,239,212	213,706	1,60,667	10,62,663

The percentage of arable waste remaining in 1882-83 was thus only 8·7.

In 1878 the revision of the thirty years' settlements was commenced in Sangamner, and new rates introduced in 1880. Sangamner now contained, in consequence of subsequent changes, 148 in place of 118 Government villages. During the thirty years' lease great improvements had taken place in the way of communications; in 1849 there had been no metalled road, while

in 1880 there were two, bridged and drained throughout. In the latter year the chief grain traffic passed along the road to the Devláli station in Násik, nearly forty miles. Weekly markets were also held at six places within the subdivision. In the thirty years population had increased by 29 per cent., flat-roofed and tiled houses by 52 per cent., field cattle 17·8 per cent., other cattle 19·9 per cent., ploughs by 28·3 per cent., and carts 24·5 per cent. (1,017 to 1,266). Thatched houses had decreased 19·4 per cent., and horses 11·4 per cent.

The following statement shows the fluctuations in revenue, &c., from 1838 :—

Years.	Occupied.	Waste.	Remissions.	Collections
	Acrea.	Acrea.	Rs.	Rs.
1838-1848	75,197	68,850	19,099	53,214
1848-1858	84,957	40,725	3,424	48,844
1858-1868	116,636	10,273	64	70,052
1868-1878	122,859	3,641	790	72,234
1878-79	120,643	5,632	52	72,009

The eighty-two villages into which revised rates were introduced in 1880 were divided into three groups. Fifteen villages, the most favourably situated with regard to climate, and lying mostly to the west of the high road leading from Púna to Násik, were placed in the first with a maximum rate of Rs. 2.

Fifty-one villages were in the second, with a rise of 2 aunas in the maximum rate of R. 1 12a. for eight villages having the advantage of the market of Sangamner, bringing them to R. 1 14a. They were in the centre of the subdivision, not the best for climate, but having generally the best soils. Sixteen farther to the east, and therefore of inferior rainfall, formed the third group at a maximum of R. 1 10a. The area of Government garden land was longer by 5,066 acres than at the first settlement; on this a maximum of Rs. 8 gave an average of R. 3 2a. 11p. As elsewhere, land under new wells paid only dry-crop rates, and the old garden land was reduced to the maximum dry-crop rates.

Vil- lages.	First Settlement.		Revision Survey.					
	Area.	Assess- ment.	Occupied.		Waste.		Total.	
			Area.	Assess- ment.	Area.	Assess- ment.	Area.	Assess- ment
15	Acres. 20,312	Rs. 16,444	Acres. 23,686	Rs. 22,328	Acres. 672	Rs. 278	Acres. 24,358	Rs. 22,601
8	6,527	4,878	7,500	6,529	66	31	7,566	6,560
43	51,276	30,154	59,758	38,582	2,437	740	62,195	39,272
16	30,849	16,849	32,872	22,701	1,626	508	34,498	23,209
82	108,964	68,325	123,816	90,090	4,901	1,552	128,617	91,642

The revised rates gave an average of 11a. 8p. the acre, the first settlement average having been 10 annas, an increase of 1a. 8p. the acre. The land still unoccupied was assessed at an average of 5a. 2p., showing its inferior quality as a whole.

Ráhuri was next revised. During the thirty years the original 125 villages (101 Government and twenty-four alienated) had been reduced to 118 (110 Government and eight alienated). In the ninety-six villages, two settled in 1848-49 and ninety-four in 1849-50, population had advanced 38·8 per cent., flat-roofed and tiled houses 40·2 per cent., field cattle 33·6 per cent., cows and buffaloes 56·2 per cent., horses 44·9 per cent., ploughs 48·8 per cent., carts 42 per cent. (1,074 to 1,632), and wells from 857 to 1,514, or 76 per cent. Sheep and goats had fallen 30·6 per cent., and thatched houses 7·9 per cent. In the ten years ending in 1860 *javári* had been 51 *seers*, *bájri* 44, wheat 33, and gram 34 *seers* per rupee. In the ten ending in 1880 *javári* had been 24 *seers*, *bájri* 21, wheat 14, and gram 16 *seers*.

The following statement shows the fluctuations of area and assessment:—

Year.	Occupied.	Waste.	Remissions.	Collections.
	Acres.	Acres.	Rs.	Rs.
1839-1849	95,949	97,985	40,049	63,758
1849-1859	135,003	58,760	139	78,031
1859-1869	175,467	9,055	153	1,11,091
1869-1879	181,608	2,747	709	1,15,147

The increase in cultivation and collections was thus 89·2 and 81·2 respectively.

The ninety-six villages were thrown for maximum rates of dry-crop assessment into four groups, assessed at rates varying from R. 1 12a. to R. 1 6a., of five, thirty-eight, thirty-two, and twenty-one villages respectively. Garden land had increased from 2,463 acres in 1849-50 to 7,363 in 1879-80, ten acres channel-watered, and the rest under wells. Lands under wells were dealt with as elsewhere, and a maximum of Rs. 8 for channel-watered land gave an average of Rs. 3 1a.

The general result was as seen in the following statement:—

Vil- lages	Old Survey		Revision Survey						Maxi- mum Rates.
	Occupied		Occupied		Waste		Total		
	Area	Assessmt	Area	Assessmt	Area	Assessmt	Area	Assessmt	
	Acres	Rs	Acres	Rs	Acres	Rs	Acres	Rs	
5	15,518	9,122	16,711	11,498			16,710	11,498	1 12
98	77,891	51,036	83,841	71,119	1,149	101	81,990	71,775	1 10
22	36,107	25,013	36,5	6,570	202	91	37,015	36,061	1 8
31	39,126	25,720	41,11	4,566	1,05	110	42,278	34,676	1 6
96	168,914	1,11,810	178,587	1,56,701	2,396	913	184,973	1,57,616	

The small quantity of waste unarable was assessed at an average of a little over 6 annas, and was therefore very inferior. The average rate per acre under the first settlement had been 10a. 6p., and was now increased to 14a. 1p., a rise of 3a. 5p.

In 1884 the revision survey in the Ahmadnagar subdivision was completed. At the first settlement there had been eighty-two Government villages, with ten partially and seventeen wholly alienated; after various transfers and lapses there were, in 1844, 118 villages, of which ninety-nine were Government and nineteen alienated. The means of communication had greatly improved during the thirty years' lease. The chief roads were now the road to Púna to the south-west, and roads to Kolhár over the Nimb-dhera pass and by the Imámpur pass to Aurangábád. In addition to various other roads the loop line of the G. I. P. Railway from Dhond, in Púna, to Manmád, in Násik, had two stations within the subdivision, one at Vilád, in the north, and the other at Ahmadnagar itself; a third station at Sarola was just beyond the boundary.

In the thirty years prices had risen, *javári* from 79 lbs. in the twenty years ending in 1861 to 44 lbs. in the ten ending in 1881, that is, 79·5 per cent.; *bájri* from 66½ lbs. to 34 lbs. (92·8 per cent.); wheat from 55 lbs. to 25½ lbs., or 15·7 per cent., and gram from 53½ lbs. to 32 lbs., or 67·2 per cent. The average prices from 1871 to 1881 were almost lower than in 1861-1871, notwithstanding the famine years of 1876-1878. In seventy-one villages population had increased 14·9 per cent., flat-roofed and tiled houses 25 per cent., thatched houses 3 per cent., farm cattle 29·9 per cent., ploughs 45·9 per cent., and carts 61·1 per cent. (908 to 1,463). Wells increased from 1,534 to 1,916, or 25 per cent. There were now 20·4 acres to each pair of bullocks.

The fluctuations in tillage, &c., were as follows.

Years.	Occupied.	Waste	Remissions.	Collections.
	Acres.	Acres	Rs.	Rs.
1841-1851	92,827	58,653	25,144	86,089
1851-1861	149,768	33,567	2,026	82,511
1861-1871	175,948	8,645	367	94,634
1871-1881	177,085	8,115	219	95,374
1881-1883	173,070	9,414	—	93,652
1882-1883	172,973	9,036	—	93,768

Land had acquired a saleable value; in 312 cases it brought from 25 to fifty times the assessment; in 44 from 50 to 100 times, in 11 from 100 to 150 times, and in 6 from 150 to 200 times. In cases of mortgage its value was equally shown. The chief markets were still at Ahmadnagar, Bhingár, Jeur, and Válki. Steam presses had been set up for pressing cotton for conveyance to Bombay, and in the two first, as well as in other villages, there was a considerable weaving, brass and copperware making, and oil and sugar-pressing industry. A large through traffic from the Nizam's country and Sholápur also passed through Ahmadnagar. A revision settlement for four villages was sanctioned in 1881. The ninety-five villages were divided into three groups for maximum dry-crop rates of R. 1 10a., R. 1 8a., and R. 1 6a. The first class contained sixteen villages, all within three miles of Ahmadnagar; the increase in these came to 24·1 per cent. The second

group, of fifty-one villages, showed an increase of only 12·5 per cent.; in four of these the increase was over 50 per cent., on account of land classed formerly as unarable being found in cultivation. The remaining twenty-eight villages formed the third group, the increase on which came to 35·6 per cent.; in five, the increase was over 50 per cent. in consequence of the large increase in the area of channel-watered land.

In the whole ninety-five villages the average percentage increase was 20·5. Land under wells was treated as elsewhere. Land watered from channels led from temporary dams, 230 in number, amounted to 3,892 acres; this was mostly towards the sources of the Sína river, between the city and the hills from north to east. A maximum rate of Rs. 8 for this description of land was fixed in addition to water rates levied for the use of water from the Párgaon or Bhátodi reservoir by the Irrigation Department; a percolation rate of 2 annas an acre was also levied for lands in its immediate neighbourhood. There were only thirteen acres of rice, assessed at a maximum of Rs. 4. The average acre rate on occupied land at the proposed rates came to 10a. 7p., as against 9a. 2p. under the first settlement rates.

The general result is shown in the following statement:—

Villages.	Former Settlement		Revision Survey					
	Cultivation		Cultivation.		Waste		Total	
	Area	Assessment.	Area	Assessment.	Area.	Assessment.	Area	Assessment.
	Acres	Rs.	Acres.	Rs.	Acres.	Rs.	Acres	Rs
16	20,135	13,799	20,757	17,127	—	—	20,757	17,127
51	109,773	66,092	114,968	74,371	2,842	1,432	117,810	75,803
28	64,921	32,022	68,355	43,413	7,777	3,030	76,132	46,443
95	194,829	1,11,913	204,080	1,34,911	10,619	4,462	214,699	1,39,873

The land still left unoccupied was of inferior value, the average assessment per acre being 6a. 8p.

KOPARGAON.

The revision of the first Survey settlement in two divisions of thirty-five and fifty-three villages of the Kopargáon subdivision was proposed, in the former case among 111 of the old Sinnar Táluka (Násik), and in the latter among 189 of the Pátoda Táluka, in 1874 and 1876 respectively. Of the thirty-five villages the following particulars are gathered from the Report of the classing Assistant Superintendent, Mr. Fletcher, which accompanied the former Report. They form a compact group, of which the northernmost point is three miles south of Kopargáon on the Godávári, and which extends thence southwards about twelve miles, measuring about the same distance across its widest part.

The group is confined by no natural boundary, and contains no hill or river of any size, nor indeed any nullah which flows all the year round. The country is slightly undulating, and slopes gradually northwards towards the Godávári, into which such nullahs as there are empty themselves. The soil varies; in most of the villages black soil of various depths predominates, but in some there is a great deal of very poor soil. Considered as a whole, the fertility of the group is above the average. The early (*khariph*) crops are in the proportion of about two to one of the late (*rabi*).

Cultivation is better than in Púna and Sholápur; the soil is usually ploughed every other year; the lighter soils are not unfrequently ploughed every year. Considerable attention is paid to manure, and each house owns a manure pit outside the village walls, where all its refuse is thrown and whence manure is taken as needed. Any over from the ryots' garden land is used for dry-crop land. A common practice is to get a shepherd to fold his flock on a field, the owner feeding him and his family while they remain there by way of payment for the droppings of the sheep. Tobacco is a speciality in some of the villages. There is little channel irrigation, as the channels do not hold water for above a month or two. The average depth of the wells is 20 feet, but irrigation from them is not much resorted to, the wells being looked on as a rule only as a stand-by in case of failure of rain.

The only markets in the group are Kochale and Ráháte. The most important market in the neighbourhood is that of Yeola

(Nāsik), twelve miles north of Kopargáo, and sixteen miles from the nearest village of the group; the chief market for exportable produce is at the railway station of Lásalgáo in the Niphád Táluka, about eighteen miles north-west of Kopargáo. A considerable traffic from the country near Ahmadnagar passes towards that station through this group all the fair season. At the time of the first settlement there were 427 wells in working order and 105 in disrepair, and at the revision 621 and 275 respectively; there was an increase of 19½ in those in working order.

The grouping of the whole 111 villages, in which the thirty-five of Kopargáo were included, into classes for maximum dry-crop rates was made by first separating them into two with reference to markets and facilities of communication at maximum rates of R. 1 12a. and R. 1 8a.; then climate was considered, as well as any great excess on past payments, unless the latter was caused by a large increase of cultivation or other good apparent reason, and to meet such cases two intermediate classes, with maximum rates of R. 1 10a. and R. 1 6a., were introduced. Another village of Kopargáo, not included in the thirty-five, was reported on at the same time, and a maximum of R. 1 12a. proposed for it. The usual figured statements showing details for the different villages not having been printed with this Report, there are no means of tracing the changes in population, &c., that had taken place in these villages in the course of the thirty years' lease, or of comparing the old and new rates, and the effect of the latter on the demands of Government. The general result in 108 out of the whole 111 villages was to raise the average rate per acre from 8a. 10p. to 11a. 1p.

In the Report on the 189 villages of the old Pátoda Táluka, in which the fifty-three of Kopargáo were included, it was stated that a considerable modification in the classification of soils had to be made. By an examination of the old classing records it was found that the first class of the old scale, or 16a., had never been used at the first settlement, so that the range of values between the best and worst soils had only been from 13½a. to 2a., or 11½a.; and the value of the former had in consequence been unduly depreciated, whilst that of the latter had been unduly raised. In the thirty years there had been an increase in the number of wells

from 475 in good order to 601, showing an increase of 128, and one from 1,008 acres under irrigation from wells (*motasthal*) to 4,109. The revenue management of Pátoda had been, however, on the whole bad. The attempt made in Fasli 1230 to rectify the measurement had only increased the evil.

Under the old system the bad effect of one uniform demand on good and inferior lands was in some measure neutralized by the latitude allowed with respect to the size of the *bigha*, so that the introduction of correct measurements without a classification of soils was a step backwards in the revenue management. The system of exempting uncultivated portions of fields from assessment in some degree mitigated the evil, as the good patches could then be cultivated at the general rate; but on the whole, as remarked above, the mismanagement had been great before the first settlement. In the Kopargáo villages the effect of this had been as follows:—

First Ten Years. — Cultivation. 83,976 acres; Rs. 63,581. Waste: 35,533 acres; Rs. 21,630. Remissions, Rs. 5,762. Collections, Rs. 61,008.

Second Ten Years.—Cultivation: 114,647 acres; Rs. 82,053. Waste: 6,113 acres; Rs. 3,482. No remissions. Collections, Rs. 88,424.

Third Ten Years. — Cultivation: 120,206 acres; Rs. 85,621. Waste: 307 acres; Rs. 171. Remissions, Rs. 884. Collections; Rs. 90,527.*

The area of unoccupied land that thus remained was almost nominal. Prices of produce of the chief staple products had in the meanwhile fluctuated in the manner shown in the following statement:—

Seers per Rupee.						
	In 1846-47, the Year of Settlement.	First Decade of Settlement.	Second Decade.	Third Decade.	1874-75.	1875-76.
<i>Bájri</i> . .	36	48	33	23	31½	27
Wheat . .	18	36	27	17½	21	18
Gram . .	16½ *	34	24	16½	20½	23½
<i>Javári</i> . .	—	62½	39	29	42	30

* This includes revenue from other sources, such as grass lands.

The markets were the same as those given above under the thirty-five villages of Sinnar. Population had meanwhile increased from 20,198 to 29,283, or 44 per cent., and numbered 120 to the square mile. *

This tract of country was the most fertile in the whole subdivision, but being farthest away from the railway and from any large town, it was not considered advisable to increase the maximum rates more than 5 per cent., in addition to 2 per cent. on account of increase in cultivation, as the difference in the classification value would raise it about 27 per cent. The usual figured statements not having been printed with the Report, no details of the grouping of the fifty-three villages for maximum rates of dry-crop assessment are procurable. The general principle is stated to have been to give the highest rates of R. 1 8a. and R. 1 6a. to villages in the neighbourhood of towns and the high-road, and of R. 1 to the most remote villages. The general result was to raise the average on the arable area from 11a. 5p. to 14a. 5p. Certain crop experiments made under the personal supervision of the Survey Commissioner and other responsible officers showed an average value of the crops tested to be Rs. 24 1a. according to the prices of 1875-76; and as the average assessment on the lands was R. 1 2a. 4p., the latter in these cases was only $\frac{1}{3}$ of the former.

* The effect of the new assessment as a whole was as follows :—

Former assessment, Rs. 83,609.

Revision, Rs. 1,14,396.

Increase, 33·6 per cent.

The Survey Commissioner, in forwarding the proposals for the whole Pátoda subdivision for sanction, suggested certain modifications in the rates for the Niphád and Chándor villages. As they had been in force for some years, however, and had been levied without any difficulty, the proposals were not agreed to, and a guarantee for the permanency of the rates for twenty-nine years was given, so that the assessment on this portion of the subdivision might expire contemporaneously with that on the thirty-five villages guaranteed for thirty years in the previous year.

Revisions of assessment had been introduced into ninety-one

Government and one alienated village of the Kopargáoñ subdivision in 1875-76. A Report on the revision of twenty-two Government and one alienated villages was submitted in 1881. This will now be described. The current settlement in six Government and one alienated villages had still some years to run, and the owners of three alienated villages refused to have them surveyed and settled. This made up the total of 119 Government and six alienated villages in the subdivision.

Of the twenty-three villages, sixteen Government and one alienated, which were then in Ráhuri, had been first settled in 1849-50. Six had been settled in 1851-52, and afterwards transferred to Nevása. In this portion, which was in the south-east corner, the best soils were in the north and east, and the poorest in the south, on the borders of Ráhuri. The chief crops were *javúri*, *bájri*, wheat, and gram. Of the irrigated area under wells there had been an increase since the first settlement from 355 to 2,654 acres. Under the new measurement and classification there was an increase of 2,041 acres in the arable, and a decrease of 998 in the unarable, land. The revised classification added a tenth class to the nine laid down in the joint Report, and tended to widen the difference in relative value of superior and inferior soils.

The whole tract of country being flat, communication was easy in the fair season. The road from Ahmadnagar to Málegáoñ in Khándesh passed through these villages, but neither this nor any other road within their limits was metalled. The Dhond and Manmád Railway, however, ran through them, and had two stations, Godávári and Chitli, within, and a third, Pantámbe, just beyond them. Weekly bazaars were held in two villages, and there were accessible markets at Kopargáoñ, Rohátá, Belápur in Báhuri, and Vihirgáoñ in the neighbouring Nizám's territory. Manufactures in this tract were quite inconsiderable.

In the two sets of villages there had been a great advance in material prosperity since the first settlement. Houses of the better class had increased by 46·8 per cent., inferior houses having diminished by 54·8 per cent. Agricultural cattle, milch cattle and their young, ploughs and carts, showed an advance respectively of 110, 68, 2, 87, 6, and 104 per cent. 76·7 per cent. of the Survey fields were cultivated by the occupants, and 17·12 were sublet.

Lands had been mortgaged on an average for sums equal to sixteen times the assessment, and sold for over nineteen times. In the first ten years of the settlement eleven new wells had been made, in the second ten, fifty-nine, and in the third 114, thus showing a steady increase in prosperity. The prices of the staple grains had risen as follows:—

	Seers per Rupee.			
	Javāri.	Bājri.	Wheat.	Gram.
In the five years before the settlement	122½	55½	34	31½
In the first ten years of settlement .	47½	40	37	34
„ second „ „ .	30	24½	21	18
„ third „ „ .	24	20½	16	16
In 1879-80	14	13	11½	12½

The following statements show the state of cultivation, revenue, &c., during the Survey lease and previously:—

In sixteen villages settled in 1849-50.

	Government Occupied Land. Acres.	Un- occupied. Acres.	Re- missions. Rs.	Col- lections. Rs.
Before Settlement—				
1839-40 to 1848-49	13,358	39,789	4,783	10,705
After Settlement—				
1849-50 to 1858-59	24,165	26,821	821	12,616
1859-60 to 1868-69	46,794	4,542	19	22,193
1869-70 to 1878-79	50,811	555	323	23,200
1879-80	48,663	1,956	—	22,858

In six villages settled in 1851-52.

	Government Occupied. Acres.	Un- occupied. Acres.	Re- missions. Rs.	Col- lections. Rs.
Before Settlement—				
1841-42 to 1850-51	6,207	4,704	2,076	5,719
After Settlement—				
1851-52 to 1860-61	8,742	1,805	250	5,947
1861-62 to 1870-71	10,470	84	2	7,190
1871-72 to 1879-80	10,448	57	47	7,154
1879-80	10,488	—	—	7,200

In the years 1877-78 to 1879-80 there had been only twenty-six notices issued for the sale of occupancy rights for the recovery of revenue, and of these in only two did a sale actually take place,

proving that collections were made without difficulty. For maximum rates of dry-crop assessment two groups of villages were proposed, one at R. 1 6a., consisting of fifteen Government and one alienated villages, through which the railway ran. The other comprised the remaining seven villages, at a greater distance from the railway. The maximum of these was R. 1 4a.

The general result was as follows:—

Vil- lages.	Old Survey.		Revision Survey.						Par- centage Increase.
	Occupied Land.		Occupied Land.		Waste.		Total.		
	Acres.	Rs.	Acres.	Rs.	Acres	Rs	Acres.	Rs.	
16	44,108	20,700	45,380	28,207	2,497	955	47,877	29,162	36.0
7	15,784	9,834	16,309	12,697	41	17	16,350	12,714	29.1
23	60,192	30,534	61,689	40,904	2,536	972	64,227	41,876	34.0

The general average by the old rates on the whole arable area was 8a. 2p., and by the new 10a. 7p., giving an increase of 2a. 5p. per acre. In sanctioning these proposals, in which irrigated lands had been dealt with as in other subdivisions under the general orders of Government as to the non-taxation of improvements, it was ordered that the new rates should not be levied till 1883-84, and in the meanwhile only one-eighth, or 2 annas in the rupee, were to be levied beyond the old assessments. On the matter being reported to the Secretary of State in 1885, it was considered that a sufficient length of time had elapsed to show from the state of the collections and the condition of the subdivision that some relaxation was necessary, and the choice lying between continuing for several years the remissions already granted, or lowering the rates permanently, the latter course was adopted both in this and the Sangamner subdivision, and a permanent reduction of one-eighth in the rates was ordered, with the following results:—

	Assessment by Old Survey.	Assessment at Revision.	After 2-anna Deduction.
	Rs.	Rs.	Rs.
Kopargáo.	1,58,902	2,11,039	1,92,327
Sangamner.	1,10,816	1,43,662	1,36,207

A guarantee was given calculated to let the settlement in the above twenty-three villages expire with that in the remainder of the subdivision.

NEVÁSA.

The revision of the rates of assessment in the Nevása subdivision, originally settled in 1851-52, was proposed in 1832. When first settled it consisted of 149 Government villages and thirty-one partially or wholly alienated, but from changes that had since taken place there were at the time of revision 118 of the former and thirty of the latter, of which nineteen were to be revised, the total number coming under revision being thus 137. Almost the whole was re-measured and the soils re-classified, the latter operation having been found necessary in consequence of the prevalent error found in the old classification, viz. a too close approach made in the valuation of inferior and low descriptions of soil.

Nevása has on the east the subdivision of Sivgáon, on the south that of Nagar, on the west Ráhuri and Kopargáon, and on the north the Nizám's territory. It is generally flat, and here and there there are tracts yielding only a scanty vegetation; with this exception the soil is fairly good, the best being in the west and north, along the banks of the Godávári and Mula.

The annual rainfall from 1875 to 1880, including the famine year of 1876-77, was about $23\frac{1}{4}$ inches. The cultivation is almost entirely dry-crop, the chief crop being the *sigálu*, or cold weather *javári*; only 5 per cent. of the whole is irrigated from wells, there having been only 157 acres watered, even from the Lák reservoir constructed by Government, in seven years.

Communications had not improved much in the course of the Survey lease, except that roads then incomplete had been metalled and the smaller nullahs bridged. During the fair season carts can pass in any direction, the country being flat. There are a few villages where weekly bazaars are held, but no markets of any importance. Manufactures of coarse woollen and cotton fabrics are inconsiderable. The system of husbandry is much the same as that of Ráhuri and Kopargáon, and did not appear to have

much improved during the Survey lease. During that period population had increased 18·7 per cent., and good houses 22·5 per cent.; while thatched houses had decreased 39·5 per cent. Agricultural cattle had increased 17·8 per cent., and other descriptions 35 per cent., in the latter case contrary to the general rule in the Deccan, where the contraction of the grazing area had reduced the stock of milch cattle. Ploughs had increased 33·2 per cent., and carts 55·9 per cent., the latter increase not being so large as in many parts of the country. About 73 per cent. of the unoccupied lands were found to be tilled by the occupants themselves, and 25 per cent. sub-let. In recording cases of mortgage the money raised was on an average 18·5 times the assessment, and 1,459 acres sold realised 20·4 times. The number of substantial wells had increased from 1,101 to 1,494, there having been twenty-six new wells made in the first decade of the Survey lease, 111 in the second, and 256 during the third. The area under wells and lifts from streams had more than doubled. Prices had increased as follows:—

	Javári. Seers per Rupee.	Bájrí. Seers per Rupee.	Wheat. Seers per Rupee.	Gram. Seers per Rupee.
First decade .	55	17	35½	33½
Second decade .	30	23½	17	15½
Third decade .	24½	23	18	19

In 1880–81 there had been a heavy fall in prices to 29, 24, 19½, and 25 *seers* in the several grains quoted. It was hoped that the Dhond and Manmád railway would have a tendency to steady prices.

In 110 villages settled in 1851–52 the increase of area of cultivation and revenue had been as follows:—

	Occupied. Acres.	Arable Unoccupied. Acres.	Collections. Rs.	Remissions. Rs.
Before Settlement—				
1841–42 to 1850–51	123,385	138,703	84,713	34,916
After Settlement—				
1851–52 to 1860–61	181,195	59,337	92,049	2,342
1861–62 to 1870–71	227,387	13,787	1,10,986	—
1871–72 to 1880–81	221,373	16,620	1,09,212	3,889
1880–81 . . .	214,357	9,920	1,08,409	—

In the return for the years 1871–72 to 1880–81 the effect of the

famine year, 1876-77, is clearly perceptible. The revenue, however, appears to have been collected with ease, although there is little reason to doubt that too severe a pressure to realise revenue was put on in 1878-79; out of 3,544 notices, a very large number considering the size of the subdivision, issued for the sale of occupancy rights for recovery of arrears in 1878-79 to 1880-81, only fifteen sales actually took place; the land sold was poor, as less than one year's assessment was realised by the sale. The principle on which grouping for maximum rates of dry-crop assessment was arranged at the first settlement was retained, and the villages for the most part stood as they had in the first instance. The original dry-crop maximum rates of R. 1 4a., R. 1 2a., and R. 1 were raised by 2 annas in each class. Lands under irrigation had increased by 7,195 acres, but under the rules only that portion of these which were under combined well and channel irrigation had any extra assessment imposed on it; the average came to R. 1 1a. 1p. the acre.

The general result in the 118 Government villages was as follows:—

Class.	Villages.	By Former Survey		By Revision Survey.						Increase per cent.
		Occupied Land		Occupied Land.		Waste.		Total.		
		Area. Acres.	Rs.	Area. Acres.	Rs.	Area. Acres.	Rs.	Area. Acres.	Rs.	
1	5	10,995	5,724	11,665	6,726	830	253	12,495	6,979	17·5
2	87	172,721	90,602	178,105	1,18,545	7,313	2,556	185,508	1,21,101	30·8
3	26	36,776	16,514	38,124	21,722	1,179	382	39,303	22,104	31·6
	118	220,492	1,12,840	227,984	1,46,993	9,322	3,191	237,306	1,50,184	30·3

ALIENATED VILLAGES.

1	1	1,422	1,513	1,472	1,671	15	5	1,487	1,676	10·4
2	1	1,850	1,460	1,753	1,183	389	286	2,142	1,469	0·19
3	7	16,516	11,399	17,080	14,094	92	43	17,172	14,127	23·6
4	10	17,569	9,196	17,992	12,246	854	269	18,846	12,515	33·2
	19	37,657	23,568	38,297	29,184	1,350	603	39,647	29,787	28·8

The average rate per acre on the whole arable area, according to the first settlement, was 8a. 5p., and that according to the revision was 10a. 6p.; an increase of 2a. 1p. per acre. The arable area still left unoccupied was assessed at an average of only 5a. 5p. per acre; this shows that only land of inferior quality remains unoccupied. By way of comparison with the maximum rates proposed

it had been ascertained that in the Nizám's territory adjoining the north of Nevása rates of R. 1 10a. and R. 1 14a. had lately been imposed.

SHIVGAON.

At the time of the first Survey settlement, in 1852-53, the subdivision of Shivgaon comprised 78½ Government and 97½ *inámi* villages belonging to Holkar; considerable changes had taken place in its constitution since that time, and when the second revision took place in 1885 the number of Government villages, mostly in consequence of exchanges with Holkar, had increased to 160, with twenty-eight *inámi*, making 188 in all. Into the 160 settlements had been introduced at different periods, into fifty-six of them as late as 1868-69. For the purpose of revision partial re-measurement was carried out in fifty-six villages; the remainder were entirely re-measured. Large-sized Survey numbers were re-divided into fields of a convenient size for cultivation up to thirty acres. In re-classification a tenth class was added to the nine laid down in the joint Report, to enable exceptionally poor land, found on the hill-sides, and elevated tracts of *míl*, capable of producing only the poorest descriptions of grass, to be brought under regular classification. The classification of the villages settled in 1868-69, which had been carried out on the latest approved principles, was retained.

The subdivision is bounded on the north and east by the Nizám's territory, on the south partly by the same and partly by Jámkhed, and on the west by Nevása and Ahmadnagar. With the exception of one village, it lies below the range of hills which skirt the southern boundary, in the extensive valley of the Godávári, and enjoys a somewhat better rainfall than Nevása and Nagar, in consequence of those hills attracting the clouds. It contains about 30 per cent. of black soil, highly retentive of moisture. The best soils are in the valley of the Dhór, a territory of the Godávári, and consist of patches of rich alluvial deposit regularly flooded by the river, or of a light fertile loam mixed with fine sand. Since the first settlement the communications of the subdivision had

been much improved, the most important passing through the subdivision from Paithan to Ahmadnagar, by which the bulk of the traffic, mostly cotton from Berár and the Nizám's territories, is conveyed. In addition, all the villages in the south-west are within thirty miles of the stations of the Dhond and Manmád Railway, viz. Nagar, Vilád, and Vámburi. Various bazaars within the limits of Shivgáon itself, or in neighbouring British and foreign territory, afford ample opportunities for the disposal of local produce. There is also a not inconsiderable local manufacture of cotton and silk cloth, as well as oil and gur (molasses) for sugar. The cultivating classes as a rule are said to be careful and energetic, and apply manure more freely as a top-dressing than is usual in the Deccan. The storing of grain in pits is largely practised, and enough was said to be kept in them to feed the whole population for about $2\frac{1}{2}$ months.

The principal changes in population, &c. since the first settlement had been as follows:—

Twenty-two villages settled in 1851–52.

Increases per cent.—Population, 15·6; tiled and flat-roofed houses, 44·2; agricultural cattle, 10·7; cows, buffaloes and their young, 49·8; carts, 59·6.

Decreases per cent.—Thatched houses, 41·8; ploughs, 47 (this seems doubtful).

Eighty-one villages settled in 1852–53.

Increases per cent.—Population 14·9; tiled and flat-roofed houses, 59·1; agricultural cattle, 12·5; cows, buffaloes and their young, 6·9; carts, 114·6; ploughs, 16·8.

Decreases per cent.—Thatched houses, 5·4.

For fifty-six villages settled in 1868–69.

Increases per cent.—Population, 12·8; houses, thatched, 21·3; tiled and flat-roofed, 23·9; agricultural cattle, 5·9; cows, &c. 9·7; ploughs, 27·1; carts, 59·4.

The number of acres per plough, about eighty-three, appeared to be greatly in excess of what could be properly cultivated. Only 9·6 per cent. of the total arable area was said to be waste, and 79·1 to be cultivated by the owners themselves. Land had

acquired a considerable saleable value; out of 231 cases, in 62 it fetched from 10 to 25 times the assessment, in 27 from 25 to 50 times, in nine from fifty to 100 times, and in two for 106·7, and 196 times respectively. Out of a total of 429 new permanent wells dug during the thirty years' lease, 70 were made in the first decade, 108 in the second, and 251 in the third; this was in addition to temporary wells and water lifts on the banks of streams. In the same period dams (*bandhúrís*) had increased from 40 to 127. The total area irrigated for garden produce had advanced from 4,444 acres to 12,474, or over 180 per cent. A considerable rise in the value of agricultural produce had taken place, that on *javíri* and *bújri* having been about 144 per cent., that on wheat 91, and that on gram 75. In the collection of revenue in the years 1881-82, 1882-83, and 1883-84, there had been notices issued respectively for the sale of occupancy rights in 420, 225, and 451 cases, but in these sales had actually taken place in the first year in only thirty-three cases, in the second in four, and in the third in three; showing that the revenue was collected with ease. Taking the whole of the previous settlements together, they had resulted in an increase of cultivation and collections by 85,336 acres, and Rs. 20,823; waste land having diminished by 82,940 acres, and remissions by Rs. 10,515. The actuals of 1883-84, compared with the years preceding the settlement, show increases of 92,683 acres and Rs. 24,187 in area of cultivation and collections, while waste had fallen 118,245 to 26,493 acres, remissions had disappeared, and only Rs. 11 were left outstanding.

The principles on which the new grouping for maximum rates of dry-crop assessment was arranged were on the same lines as those adopted at the first settlement, somewhat modified by improved communications rendering markets more accessible. The groups were as follows:—

First class, maximum R. 1 6a. Forty-two villages in the south-west of the subdivision, within easy reach of Ahmadnagar and the railway by either of the two made roads, one of which passed through the centre of the group. They had a good rainfall, and included the principal market town, Tisgáon, and had also the advantages of easy access to other bazaars.

Second class, maximum R. 1 4a. This group comprised sixty-eight villages, including the three most southern hilly ones, and the head-quarters town of Shivgáon. These lay principally to the east of the first group, and had not the same advantages of rainfall and road communication.

Third class, maximum R. 1 2a. The fifty villages of this group lay to the north and north-east of those of the second group. They were farther from Ahmadnagar, and the railway, and, in addition to a less certain rainfall and inferior communications, were put to some loss in consequence of transit duties levied in the Nizam's territories, through which some of them had to pass on their way to market. Two villages settled in 1868-69, at maximum rates of R. 1 6a. and R. 1 4a., were lowered among these, with a small reduction of revenue of Rs. 267, in order to bring them into conformity with the surrounding villages.

In accordance with the orders of Government, garden lands irrigated from old wells were assessed at the highest dry-crop rates, and those under new wells at ordinary dry-crop rates according to law. For lands under channel irrigation the usual Rs. 8 scale, according to the dry-crop rate of the several villages, was adopted; this gave an average acre rate of Rs. 2 3a. 7p., against one of R. 1 12a. 10p. under the first settlement. For rice land the rate already sanctioned in Ahmadnagar, viz. Rs. 4, giving an average of R. 1 3a. 3p., was proposed. These rates kept the increase within the limits for enhancement at revision settlements laid down in Government Resolution No. 5,737, of the 29th October 1874, alluded to under the head of Pána.

The average rates on the different descriptions of land under the first and revised settlements contrasted as follows:—

	First Settlement.	Revision.
Dry-crop	8 3	9 11
Rice	—	1 3 3
Well-watered land	2 5 3	1 16 11
Channel-watered	1 12 10	2 3 7
On the total occupied area	8 9	10 7

The general result of the revision is shown in the following table:—

Class.	Villages.	First Survey.		Revision.						Increase per cent.
		Occupied Land.		Occupied Land.		Waste.		Total		
		Area. Acres.	Rs.	Area. Acres.	Rs.	Area. Acres.	Rs.	Area. Acres.	Rs.	
1 2 3	42	72,075	11,965	1,011	56,551	1,251	1,971	77,287	58,529	25.8
	66	110,071	5,103	116,996	65,976	15,612	5,102	132,608	71,578	24.2
	50	68,992	8,752	69,912	49,892	7,626	2,111	77,538	51,425	28.7
	160	251,138	1,5,823	239,971	1,72,422	27,492	10,909	257,463	1,93,111	26.0

In sanctioning the proposed rates of assessment, Government directed that wherever the enhancement on a holding exceeded 25 per cent., the increase beyond that amount should be remitted for two years; that where the increase was over 50 per cent. remission should be given for the third and fourth years, and any enhancement above 75 per cent. should be abandoned for the fifth and sixth years of the new settlement. Otherwise the rates were guaranteed for the usual term of thirty years.

PÁRNER (KARDA).

The revision of the Párner, formerly known as the Karda subdivision, was carried out in 1884. At the time of the first Survey settlement, in 1851-52, it had consisted of 146 villages; its name was changed in 1859-60, and the number of its villages has been reduced to 126, of which 107½ are Government and 15½ alienated. The entire area at the revision corresponded very nearly with that of the first Survey, but there was found, under the former, to be the large difference of 27,423 acres between what was classed as unarable on the two occasions; the whole of the lands were accordingly re-measured. In classification ten classes of soils were adopted in place of the nine of the Joint Report system. Some of the classification, in a few villages classified in 1848-49, before the latter system was put in practice, had to be done over again, and in the remainder it was thoroughly re-examined and allowed to stand wherever found in accordance with the latest revised principles. Párner has on its north Sangamner and Nagar, and the latter on its east; to the south lies Srígonda, and to the west Junnar and Sirur, belonging to Púna.

Leaving out of account the fourteen villages settled at later periods, the improvement in the circumstances of the great bulk of those settled between 1848 and 1855 will be seen from the following figures:—Population had risen 13·3 per cent., still, however, numbering only 91·4 to the square mile, and flat-roofed and tiled houses 217, whilst thatched ones had diminished 5·7. Agricultural cattle had increased but slightly, and ploughs only 2·8 per cent.; but carts had advanced from 991 to 1,356, or 55 per cent. There were about twenty-five acres of cultivated land for each plough, an area easily managed, as the soil was mostly of a poor, light nature, which it was only necessary to plough in from once in four to seven years. Wells of permanent construction had increased by 479, and of a more temporary nature by 101; of these fifty-two were in the first ten years of the settlement, 181 in the second, and 347 in the third. The irrigated area had risen to 11,986 acres, being 7,317 acres, or 157 per cent. over that of the time of the first settlement. In 233 cases of sales of land the registration returns proved that the average number of times of the Survey assessment the land sold for was twenty-one, but in eight instances it was as high as 221 times. The prices of the staple grains had risen considerably, *javári* in the third decade of the settlement having risen to 24½ *seers* per rupee from 66 in the period previous to the settlement, *bájrí* to 20½ from 54, wheat to 13½ from 36½, and gram to 14½ from 36½. In ninety villages, the largest number settled at one time since 1851–52, the changes in tillage and collections, &c., had been as follows:—

	Occupied. Acres.	Unoccupied. Acres.	Collections. Rs.	Remissions. Rs.
Before Settlement—				
1841–42 to 1850–51	108,685	48,117	78,496	28,932
After Settlement—				
1851–52 to 1860–61	162,209	33,846	66,385	2,702
1861–62 to 1870–71	183,943	12,815	75,682	249
1871–72 to 1880–81	190,019	9,668	75,889	1,620*
1881–82 & 1882–83	183,713	13,602	76,149	—
1882–83 . . .	183,637	6,106	76,158	—

* Famine year included.

In the years 1880-81 and 1881-82 out of 2,139 notices of sales of occupancy rights for arrears of revenue only 32 resulted in actual sales, at which 1,296 acres only fetched Rs. 76, so that the land was evidently very poor; the year 1882-83 showed 372 notices, but no sales of occupancy.

For maximum dry-crop rates at the revision the 108 villages were thrown into four groups, the first containing the single village of Kánhar, with a maximum rate of R. 1 14a. It is situated on an elevated plateau, where some of the best wheat in the Deccan is grown. It is itself a market town, and connected with Súpa and Párner by good roads. The second group comprised 46 villages, with a maximum rate of R. 1 10a. These villages were all situated round the bazaar towns of Kánhar and Párner, and, lying in an elevated region, have as good a climate as the former. The third group consisted of fifty-three villages with a maximum of R. 1 8a.; they comprised all the remainder of the subdivision but eight villages, which were in the north and north-west, with a poor population and bad communications, and had in consequence a lower maximum of R. 1 6a. given them. Well-irrigated land was dealt with as elsewhere; for what was irrigated from channels a maximum of Rs. 8 gave an average of only R. 2 4a. 2p. Newly made rice beds of the area of forty-three acres had no extra assessment imposed on them. The average old and new rates were:—

	Old.			New.		
	Rs.	a.	p.	Rs.	a.	p.
Dry-crop	6	3		6	6	
Well-watered	2	9	9	1	2	0
Channel-watered.	2	10	11	2	4	2
General average	7	0		7	6	

The general result of the new rates was as follows:—

Class.	Villages.	Old.		Revision.						Per cent Increase.
		Occupied.		Occupied.		Waste.		Total.		
1	1	Area. Acres.	Rs.	Area. Acres.	Rs.	Area. Acres.	Rs.	Area. Acres.	Rs.	
2	46	3,987	2,412	4,663	2,970	20	2	4,683	2,972	23.1
3	53	97,508	43,280	110,467	51,286	3,298	793	113,765	52,079	18.6
4	8	105,584	48,526	117,051	59,562	3,291	1,235	120,332	60,797	22.7
		20,987	5,561	23,223	5,733	2,360	850	25,582	6,083	3.1
	108	227,956	99,759	255,404	1,19,551	8,068	2,880	264,372	1,21,931	19.8

AKOLÁ.

In 1886 proposals were submitted for the revision of fifty villages in the open portion of the Akolá subdivision, called *deshi*, in contradistinction to the *dāngi* villages situated in the hilly portion of the tract. These had been originally settled, thirty-nine in 1848-49 and two in 1856-57, forming portion of the old Akolá subdivision, and nine in 1849-50, transferred from Junnar. It was found necessary to re-measure and re-classify the soils of the whole of these villages in consequence of the faulty nature of the old work done before the Joint Report rules were drawn up. In the course of the new operations holdings of excessive area were broken up into fields of convenient size, so that 7,138 Survey numbers of the first settlement became 10,209 numbers and subordinate numbers in the second. In place of the various old classification scales used at different times, the Joint Report scale, with the addition of a tenth class, valued at one anna, was used throughout. The increase found by the new measurement in the different kinds of cultivation was 9,160 acres in dry-crop, 1,608 in garden, and 552 in rice, whilst the unarable area showed a decrease of 14,630 acres. The subdivision forms the north-western extremity of the Ahmadnagar Collectorate, bordering on Násik, the proportion of hilly country to the west and south-west being about two-thirds of the whole area. It is bounded on the east by Sangamner, on the south by Junnar, in Púna, and on the west by the Sahyádri range and the Tanna Collectorate. The majority of the villages to be settled were well off for means of communication, and derived much benefit from the outside traffic by the road from Ahmadnagar which passes down the Bári Ghát to the station of Ghoti on the main line of the G. I. P. Railway between Bombay and Calcutta; this line did not exist at the time of the first settlement. Akolá is the chief market, but it is merely of local importance. Rájur, just within the border of the hill-country, has a considerable business as an entrepôt for imports and exports. Akolá itself is forty-five miles from one and thirty-three miles from the other railway line. Oil is manufactured to a small extent, but with this exception there is no manufacture

not directly connected with the soil. The following statistics show the progress made by forty-eight out of the fifty villages in the course of the thirty years of the Survey settlement. Population had increased 38·3 per cent., and the tiled and flat-roofed houses 45·3, whilst thatched houses had decreased 26·3, showing that the people could afford to live in better houses than formerly. Although carts, which are mainly employed in plying for hire between the railways and places on the main road, had increased from 420 to 1,011, the number of agricultural cattle had hardly increased at all: there was, however, a pair of bullocks for every fourteen acres of occupied land, an unusually large proportion for the Deccan, and ample for all agricultural purposes. Other cattle had increased considerably, owing, probably, to the large grazing area available in the hilly portion of the subdivision. Wells and lifts from streams had increased from 595 to 842, or 41½ per cent. Eighty-four per cent. of the holdings of Khátédars were cultivated by themselves or in part ownership with others. Sales of land were apparently numerous at high prices, but these were in many cases in reality mortgages made out to be sales with a view to elude the action of the Agriculturists' Relief Act. Mortgages were numerous, and the proportions borne by the sums advanced to the assessment of the land were very high.

The prices of *bājri* and wheat before and after the settlement were as follows:—

	Bājri. Seers per Rupee.	Wheat. Seers per Rupee.
For ten years previous to the settlement	41	34
First ten years of settlement (1848-49 to 1857-58)	29	26
Second ten years of settlement (1858-59 to 1867-68)	15	11
Last seventeen years of settlement (1868-69 to 1884-85)	18	14

For the first sixteen years the revenue in thirty-nine villages rose gradually from Rs. 26,034 to Rs. 33,250, and arable waste fell from 8,269 acres, assessed at Rs. 5,410, to 680 acres, valued at Rs. 348. The revenue was punctually realised. From 1864-65 to 1874-75 the cultivated area and realisations were at their

maximum. In the six years 1875-76 to 1880-81, i.e. the famine year and five following years, there was a slight but gradual decline, and 1,100 acres, assessed at Rs. 773, went out of cultivation. In the succeeding four years there had been a small gradual increase of cultivation and revenue. In the nine villages settled in 1849-50 there had been similar results, the waste land at the revision standing at 431 acres, assessed at Rs. 119. In the two villages settled in 1856-57 all the waste but two acres was absorbed in the first ten years of the settlement, and there has since been no change in cultivated area or revenue. That the revenue has been collected with ease has been proved by the fact of the scale of occupancy rights having had to be resorted to only in three out of 1,882 cases in which notices were served for the collection of revenue in the three years 1882-83 to 1884-85. These facts all showed an improvement in the material condition of the subdivision which justified an increase in the assessment of land.

The new grouping for maximum rates of dry-crop assessment did not differ essentially from the first adopted. The first group included twenty-nine villages lying in the open plain of the Pravara river, traversed by the high road, with the best climate and communications in the subdivision. The maximum was increased from Rs. 2 to Rs. 2½. In the second group of six villages the old maximum of Rs. 2 was retained. They lay immediately to the west of the first group, not far from the high-road; they were, however, somewhat rough and hilly, and their climate not quite so well suited to dry crops as in the first. In the third group were placed five villages, with a maximum of R. 1 14a., raised two annas beyond the old maximum. Lying in the valley of the Ardhalá, their communications are not good, and access to markets consequently less favourable. The fourth group consisted of seven villages with a maximum of Rs. 1½. Six of these were old Junnar villages, lying in the south-eastern corner of the subdivision, cut off by hills from the high-road at Akolá, and dependent on difficult cart tracks for access to markets. The climate, too, was somewhat too moist for the best dry crops. One village north of the second group, but similarly situated among hills to the remaining six, was placed with them. The last group contained only three villages, to the west of and similarly circum-

stanced to those of the fourth group, but with even more difficult communications. Its maximum rate was Rs. 1½. Forty acres of rice, assessed at the old settlement at an average of Rs. 2 2a. 5p., had increased to 592 acres, which was assessed at R. 1 5a. 9p. the acre, at a maximum of Rs. 8. Newly constructed rice beds were assessed at dry-crop rates, as well as land under new wells dug since the commencement of the settlement, while land under old wells was reduced to the highest dry-crop rates. Garden land had increased from 417 to 1,958 acres. Of this 1,118 acres under wells was assessed at an average of R. 1 4a. 2p. per acre. The remainder, 840 acres, was channel-watered, and at a maximum of Rs. 8 was estimated to produce Rs. 2,641, or Rs. 32a. 4p. the acre.

The following table shows the general result :—

Class.	Villages.	Old Survey.		Revision.						Increase per cent.
		Occupied.		Occupied.		Waste.		Total.		
1	29	Area. Acres.	Rs.	Area. Acres.	Rs.	Area. Acres.	Rs.	Area. Acres.	Rs.	
2	6	26,846	24,736	30,479	28,759	2,309	874	32,788	29,633	16.3
3	5	3,183	2,652	3,971	2,990	82	27	4,053	3,017	12.7
4	7	7,968	5,144	11,906	6,667	173	56	12,079	6,723	29.6
5	3	18,389	5,840	20,039	7,426	460	98	20,499	7,524	27.2
	3	5,375	1,376	6,315	1,496	2	1	6,317	1,497	8.7
	50	61,761	39,748	72,710	47,338	3,026	1,056	75,736	48,394	19.1

The average assessment per acre over the whole area was under the first settlement 10a. 4p., and was increased under the new to only 10a. 5p. In sanctioning the proposed revision for the usual period of thirty years, Government made the same concessions as in the Párner subdivision, with regard to enhanced assessments in holdings.

JAMKHEd.

The subdivision of Jámkhed, consisting of sixty-one Government villages to be revised and ten alienated, were also reported on in 1886. Lying to the east and south-west of Ahmadnagar, it is comprised in fourteen separate blocks, and with the exception of

a portion of Sivgáon on the north, touches no other British subdivision, being surrounded by, as well as intermingled with villages in the Nizam's territory. It divided itself into two portions of nearly equal extent but of very different character. The northern and north-western villages are scattered over the spurs and valleys of the Bálághát, a gently undulating plateau of an average height of 2,500 feet above the sea. The remaining portion of the subdivision lies at the foot of the Bálághát to the south and east, and is drained by the affluents of the Sina. The rainfall on and north of the Bálághát is more plentiful and certain than in the neighbourhood of Jámkhed itself and in the villages to the south and west out in the plain. On the whole, however, there had been an average fall of $27\frac{1}{2}$ inches for the twenty-one years preceding the settlement, and in only three years during that period had it fallen below twenty inches, so that the district as a whole had a climate unusually favourable for the crops grown in a plain country. In the northern half much pains are taken to make the most of a soil naturally poor, while in the south and east cultivation is more slovenly. At the time of the first settlement the northern and southern portions were cut off from all wheeled communication with each other by the Bálághát plateau; matters in this respect had been greatly improved by the time of the revision. Of the local markets the most important was Karda, in the extreme south-east of the subdivision; but Jámkhed itself has a tolerably good one. All trade, however, is very much hampered by the heavy transit duties levied in every direction in the intermingled Nizam's territory; statistics show that progress in the two main portions of the subdivision had been by no means uniform, the greater certainly of the rainfall in the northern than in the southern having saved it from the effects of the famine more than the plain villages in the south and east.

In the first group, to be described presently, the increase in population had been $16\frac{1}{2}$ per cent., and that of the better and inferior classes of houses respectively 67 and 21 per cent.; cattle of all kinds were more numerous, and carts had quadrupled, whilst wells and water-lifts had increased 36 per cent. Its agricultural cattle were more by $6\frac{1}{2}$ per cent., and bore the high proportion of a pair to every nine acres. Other cattle and sheep and

goats, too, had largely increased, notwithstanding the extension of cultivation. In the statistics of the second group, lying round the skirts of the hilly country, the effects of the famine were more clearly traceable. The increase in population was insignificant, agricultural cattle had fallen off by 5 per cent., although the proportion they bore to the cultivated area was still large (a pair of bullocks to ten acres); milch cattle and sheep and goats had also decreased, and the increase in carts was only 16 per cent. There was, however, a larger increase in houses and wells and lifts than in the northern villages. In the third group, farther out in the plain and more exposed to famine, population had slightly declined, agricultural cattle were fewer by $13\frac{1}{2}$ per cent., and milch cattle and sheep and goats had also fallen off. Carts, numerous at the first settlement, had increased only 13 per cent. in number. The following statement shows the effect of the famine in the different groups in a clear light, and also the comparatively rapid recovery that has since taken place:—

FIRST GROUP.

	Number in 1875.	Number in 1877.	Percentage increase in 1885 over 1877.
People . . .	30,452	28,126	6
Cattle . . .	13,031	10,825	22
Sheep, &c. . .	19,453	13,916	15

SECOND GROUP.

People . . .	22,905	18,734	10
Cattle . . .	8,493	4,720	57
Sheep, &c. . .	9,174	5,920	15

THIRD GROUP.

People . . .	10,655	6,979	30
Cattle . . .	4,978	1,936	122
Sheep, &c. . .	5,142	3,184	8 $\frac{1}{2}$

The greater effect of the famine in the second and third groups, those in the plain, than in the first group in the hills, in diminishing the resources of the villages, is evident. Satisfactory evidence of the high value of land was forwarded by the Superintendent with his Report, which it is unnecessary to give in detail. Prices had risen as follows:—

	Seers of 80 Tolas per Rupee.	
	Bājri.	Javāri.
1841-42 to 1850-51, previous to settlement	43	53
Ten years of settlement, 1851-52 to 1860-61	32	34
Second ten years, 1861-62 to 1870-71	12	17
Last fourteen years, 1871-72 to 1884-85	14	20

In fifty-nine out of the sixty-one villages the area under tillage and the revenue at the first settlement were 94,084 acres and Rs. 36,180. Up to 1864-65, when the American war prices began to abate, the revenue increased steadily and rapidly, and reached its highest point of Rs. 65,192, or nearly 50 per cent. increase, in 1871-72, the unoccupied assessed area having, in the same period, shrunk from 69,364 acres, assessed at Rs. 23,438, to 2,773 acres, assessed at Rs. 937. From this year, in spite of lower prices, there was but a trifling decline till the effects of the famine were seen in 1879-80, when 4,533 acres, assessed at Rs. 1,300, had fallen waste. After this year a reaction took place, and has steadily gone on. In the three years, 1882-83 to 1884-85, out of 137 cases in which notices for the sale of occupancy rights for the collection of revenue arrears were issued, sale took place in two instances, so that there has been no difficulty in collecting the revenue.

Under the first settlement the fifty-nine villages were arranged in four groups for maximum rates of dry-crop assessment. In these but little change was found requisite. The climate remaining the same, communications all over the subdivision internally had improved in about equal proportion, and the railways, which had so marked an effect on external and general conditions, had approached from the south and east, and thus, while accelerating the current and enhancing the volume of the traffic-stream, had not changed the direction of its original flow. The new grouping was as follows:—

The first, of twenty-six villages, at R. 1 6a., was raised only 2a. above the original maximum. It was identical with the old first class, and comprised the northern hilly portion of the subdivision. It enjoyed an excellent climate, and though its communications were not very good, a sufficient outlet for surplus produce was available. The second group, with a maximum of Rs. 1½, con-

sisting of sixteen villages, lay round the skirt of the hilly tract. The climate was not so good as that of the first group, but its internal communications were easy. In it were twelve villages of the old second class, which had a maximum of R. 1 2a., and one lapsed alienated village surrounded by them. Two of the old third group, the position of which had been improved by the construction of the made road, and one formerly belonging to Nagar, and with an original maximum of Rs. 1½, made up the sixteen. The third group had nineteen villages, sixteen of the old third class, with an old maximum of R. 1, and a new proposed maximum of R. 1 2a., and three villages of the old fourth group, with a maximum of 14a. The latter, on the south-east border, were near the Karmála and Srígonḍa roads, and resembled the other sixteen in all respects. There was no rice at the first settlement. The 106 acres since made into rice beds was assessed at dry-crop rates only. The area of garden land had increased from 2,567 to 7,687 acres. Its old assessment was R. 1 13a. 7p. per acre; the new assessment came to Rs. 6.759, or an average of 14a. Of this the well-watered area was 6,381 acres, assessed at Rs. 4,264, or an average of 10a. 8p., and the channel-watered 1,306 acres, assessed at Rs. 2,495, giving an average of R. 1 14a. 7p. per acre. The usual rules with regard to the non-assessment of improvements and reducing that of land under old works to the highest dry-crop rates were carried out.

The general result will be seen from the subjoined statement:—

Class.	Villages.	By Old Survey.		New Survey.						Increase per cent.
		Occupied Land.		Occupied Land.		Waste.		Total.		
		Area. Acres.	Rs.	Area. Acres.	Rs.	Area. Acres.	Rs.	Area. Acres.	Rs.	
1	26	73,395	32,357	81,328	89,489	507	343	81,835	39,832	22.0
2	16	52,720	20,366	56,925	26,637	982	386	57,907	27,023	30.8
3	19	35,306	12,870	36,923	16,811	3,229	902	40,152	17,713	30.6
	61	161,481	65,598	175,176	82,937	4,718	1,631	179,894	84,568	26.4

The assessed arable land still left unoccupied at the second settlement was evidently of inferior quality, being assessed at only 5a. 6p. per acre. Of the total increase of Rs. 17,344 in assessment

about $7\frac{1}{2}$ per cent. was due to the 13,595 additional acres which the revision measurements brought to light.

In sanctioning the rates for thirty years the same remissions in holdings that had been increased over certain per-centages were ordered to be allowed that had been granted in other subdivisions.

AKOLÁ (D'ANGI VILLAGES).

A revision of assessment in the *dúngi* or hilly portion of the Akolá subdivision, comprising ninety-seven of the 110 villages settled by Mr. Fraser-Tytler in 1848-49, and five transferred from Junnar revised in 1850-51, was carried out in 1887, and the proposals for the whole 102 villages were sanctioned by Government in the same year. It will be remembered that the settlement previously made was not one entirely according to the principles of the Revenue Survey, the country not having been considered at the time ripe for such a system. Only the superior descriptions of soil in rice, dry-crop, and garden, were regularly demarcated and assessed. Of the *mál*, or hilly lands, only portions roughly defined were assessed in the lump and given out on leases for five years, each cultivator paying for his portion a proportionate share of the lump assessment placed on the whole. Five years afterwards (1855), however, it was found practicable to measure the whole of the land in detail, and the leasing system was done away with. When the time for revision arrived it was found that the old measurement and classification of soils were so unsatisfactory, having been carried out by members of the Mámlatdár's establishment and other inexperienced men, that an entire re-measurement and re-classification were ordered to be made. This has resulted in 29,248 old numbers becoming 25,410 new Survey and subsidiary numbers.

In the re-classification of soils a tenth class has been adopted as elsewhere according to modern practice, with a view to preserve sufficient distinction between the valuation of superior and inferior

soils. Considering the roughness of the first measurements, it is not surprising to find a considerable difference—one of 2,804 acres—between the areas recorded by the two surveys. A still greater difference has been found between those recorded of the lands in occupation, the areas under dry crop, rice, garden, and unarable contrasting as follows:—

	Old Survey.	New Survey.	Difference
	Acres.	Acres.	Acres.
Dry-crop :	129,468	141,159	+11,691
Rice . .	4,237	7,666	+2,429
Garden . .	205	556	+351
Unarable .	108,371	90,006	-18,365

This tract of country lies to the west of the *deshi* villages, the revision of assessment in which has already been described. It is divided into three principal valleys trending from north-west to south-east, the rivers that run through which have their beds so deep as to be unavailable for irrigation. The soil varies much in depth, but, with a good monsoon, produces fair crops of the ordinary hill grains. The Superintendent was of opinion that the rainfall is less now than at the time of the first settlement, in consequence of the subsequent denudation of jungle. The chief local market is that of Rájur, which lies in the central valley of the Pravara river, and is connected by a made road with the Ghoti station on the north-eastern branch of the G. I. P. Railway, as well as with the loop line from Dhond to Manmád, which connects the north-eastern with the south-eastern branch. The other communications of the tract are unimportant.

In the course of the Survey lease the population of these villages has increased by 52·4 per cent.; the better class of houses has more than doubled, and thatched houses have increased by 48·7 per cent. Agricultural cattle have slightly fallen off, but still number about one pair to seventeen acres. Carts, especially in the Pravara valley, where they ply for hire to the two railways, have nearly trebled in number, and there can be no doubt that the general prosperity has been greatly enhanced, partly, of course, owing to the rise in prices, which is shown for the four principal grains in the following statement in *seers* per rupee:—

	Nágli.	Bájri.	Wheat.	Rice (cleaned)
Ten years before settlement (1838-39 to 1847-48) .	58 $\frac{1}{4}$	41 $\frac{1}{4}$	34 $\frac{1}{4}$	20
Ten years after settlement (1848-49 to 1857-58) .	49	28 $\frac{3}{4}$	25 $\frac{1}{2}$	21 $\frac{3}{4}$
Second ten years (1858-59 to 1867-68)	22 $\frac{3}{4}$	15 $\frac{1}{2}$	11 $\frac{1}{4}$	9 $\frac{3}{4}$
Eighteen subsequent years .	25 $\frac{1}{4}$	18	14 $\frac{1}{4}$	9 $\frac{3}{4}$

The area of cultivation in the meanwhile has almost doubled itself.

Of the 102 villages included in this revision, ninety-seven came under Mr. Tytler's original settlement of Akolá and five have been transferred from Junnar in Púna. In the latter, from a cultivated area of 2,963 acres, with 2,905 of waste in the year of settlement, the former has so much increased that there is now only one acre unoccupied. With the exception of 1885-86, in which twelve cases of distraint and sale of occupancy took place out of 456 in which notices were served, there have been no sales of occupancy for non-payment of rent from 1883-1884.

Under the original settlement a general maximum dry-crop rate of R. 1 2a. was fixed for the whole of the ninety-seven villages; for the five transferred from Junnar the rates were three-quarters and R. 1. For the purpose of revision they were divided into seven groups, as follows, the first containing the single market town of Rájur, and having a maximum dry-crop rate of R. 1 14a., or two annas lower than that sanctioned in the previous year for the group immediately to the east in the plain country. It is rather more hilly and moist in climate, but these disadvantages are compensated for by its position on a made road and its markets.

The next group consists of six villages with a maximum rate of R. 1 10a. They comprise the market town of Kotal and the villages lying between it and Akolá, with which they are connected by a made road. The climate is moister than that of the plain country, but produces more valuable crops than the country farther west. The third group consists of four villages to the east of the second, with the same climate but inferior communications, and two to the north of Rájur, which have direct access

to Akolá; the maximum of the third group is R. 1 8a. The fourth group contains twenty-one villages with a maximum of R. 1 6a.; it contains most of those in the Pravara valley, and extends along both sides of the made road from the western border as far east as Rájur. Three other villages adjoin the Kotal group on the west, and have nearly the same climate as the latter, but inferior communications. The villages on the western boundary have a very moist climate, but are compensated for this disadvantage in comparison with the more easterly ones by being nearer the railway. The fifth group, of five villages, has the same maximum of R. 1 4a. as the villages settled in the previous year. Communications are bad and carts cannot be used in it, although the climate is nearly the same as that of the second group. The sixth group, of thirty-seven villages, has a similar climate to the fourth, to the north and south of which its villages lie, but its communications are inferior; its maximum has been fixed at R. 1 2a. The seventh and last group, with a maximum of R. 1, consists of twenty-six villages in the remote country round the sources of the Pravara and Mula rivers, overhanging the Konkan for about eighteen miles. The climate is excessively moist, and cart tracks are almost unknown in it.

The area of Government rice land recorded by the old Survey was 3,829 acres, assessed at an average of R. 1 8a. 4p. per acre. The new maximum rates, viz. Rs. 6 in the first three groups, Rs. 7 in the three next, and Rs. 6 in the last, will give an average of R. 1 9a. 10p., which on 7,666 acres will yield Rs. 11,493, as against the former Rs. 5,822. All newly-constructed rice beds are only charged dry-crop rates. The former area of 205 acres of garden land has now increased to 512, of which 102 are under wells and the rest under channel irrigation. The old average rate was Rs. 2 9a. the acre; under the new rates land under wells will pay an average of R. 1 7a. 6p., and that under channels Rs. 2 6a. 5p. Land under new wells will only be charged dry-crop rates, and that under old wells will be similarly brought down to maximum dry-crop assessment.

The general result of the revision, as will be seen from the following table, shows an increase of Rs. 8,349 or 23·8 per cent., but it is in reality much less, as there are about 15,000 tillage

acres which the new measurement shows have hitherto escaped assessment:—

Group and No. of Villages.	By Old Survey.		By Revision Survey.						Increase per cent.
	Area.	Assess-ment.	Government Occupied Land.		Waste.		Total.		
			Area.	Assesst.	Area.	Assesst.	Area.	Assesst.	
	Acres.	Rs.	Acres	Rs.	Acres.	Rs.	Acres.	Rs.	
1.— 1	2,651	878	2,555	1,341	110	39	2,665	1,380	52·7
2.— 6	9,579	4,718	10,964	5,687	2,667	652	13,631	6,339	20·5
3.— 6	5,709	2,564	6,266	2,595	1,526	325	7,792	2,920	1·2
4.— 21	25,072	7,796	26,667	10,402	722	158	27,389	10,560	38·4
5.— 5	5,119	1,400	6,119	1,825	1,247	241	7,366	2,066	30·4
6.— 37	52,388	14,080	59,492	17,240	3,865	578	63,357	17,818	22·4
7.— 26	15,066	3,576	18,659	4,271	884	130	19,543	4,401	19·4
102	115,584	35,012	130,722	43,361	11,021	2,123	141,743	45,484	23·8

All cases of single villages in which the increase by revision has been more than that allowed by the orders of Government have been satisfactorily accounted for, mostly through the rough nature of the first settlement and the consequent great inequality of the old assessments. It will be seen from the figures given above that there is really little room left for further improvement, as although there are nominally about 11,000 acres of arable land still waste, it must be hardly worth cultivating, being assessed only at an average of a little over three annas an acre.

SANGAMNER.

Proposals for the revision of the first Survey settlement in fifty villages of the Sangamner subdivision were submitted in January 1881, and sanctioned by Government with some modifications proposed by the Survey Commissioner in June of the same year. Into twenty-two of those villages, which had belonged to the original Táluka, a settlement was first introduced in 1848-49, and in the same year into sixteen others that had been trans-

ferred from Akolá. Into twelve of those remaining villages, which were transferred from Junnar (Púna), a settlement was introduced in the following year, 1849-50, and in the same year into one originally belonging to Párner, transferred in 1872-73. One village having been entirely taken up as a forest reserve, the revision was only to be made applicable to fifty villages. In the re-measurement to which the villages were subjected there was a decrease of 1,425 acres in the total area, owing to more careful survey of boundaries, roads, &c., checked by traverse lines furnished by the Topographical Survey of India, and a transfer of 7,355 acres from the head of unarable to that of arable land, much land formerly of little value, and deducted freely as unarable at the first survey, having been since brought into cultivation. Some modifications were also made in the classification scale, both of dry-crop and rice lands; and, as in other revision settlements, a tenthth added to the nine classes of soil laid down in the Joint Report, to leave room for a greater difference than was formerly made between the valuation of superior and inferior soils. In the thirty years of the Survey lease the pressure of population per square mile had increased from 61·8 to 77·5, the increase in the whole fifty villages having been $25\frac{1}{2}$ per cent. Flat-roofed and tiled houses had increased by 34·3, while inferior thatched houses had diminished by 3·7. Ploughs were more by 23·2 per cent., carts by 121·4; but in agricultural cattle there had been a very slight increase. Nearly 80 per cent. of the Survey numbers were cultivated by the occupants themselves, and 7·7 were sublet. In the two years preceding the settlement 894 acres, assessed at Rs. 472, had been mortgaged for Rs. 21,665, giving an average of about forty-six times the assessment, at rates of interest varying from 6 to 24 per cent. 221 acres had been sold at 109 times the Survey assessment; it was thus evident that land had acquired a high value. In the course of thirty years 217 substantial new wells had been constructed, 12 in the first ten years, 47 in the second, and 158 in the third; and the area under irrigation from wells and water-lifts combined had risen from 568 to 2,472 acres in Government land. The prices of agricultural produce had risen, as shown by the following statement:—

Seers per Rupee.
Javári. Bajri. Wheat. Gram.

For four years preceding the first settle-

ment	76	61½	42	38½
Average of first ten years	56*	46	37	35
„ second „	31	23	18	15
„ third „	31	24	17	17
„ 1875-66	33	27	19½	25½
„ 1876-77	15	13	13	13½
„ 1877-78	11	10	8	9
„ 1878-79	12	12	8	9
„ 1879-80	14	13	10	12½

Although of late years prices had somewhat fallen, they were higher than in the famine year of 1876-77. The number of notices for the sale of occupancy rights to recover arrears of revenue in the three years 1877-78 to 1879-80 was 2,963, but in only eighteen of these did any sale actually take place.

The following statements show the revenue history of the two sets of villages before and after the Survey settlement:—

THIRTY-EIGHT VILLAGES.

	Average Occu- pied Area of Government Land.	Average Area of Waste.	Remis- sions.	Collec- tions.
Before Settlement—	Acres.	Acres.	Rs.	Rs.
1838-39 to 1847-48	24,688	20,261	5,466	22,772
After Settlement—				
1848-49 to 1857-58	32,870	12,605	882	19,144
1858-59 to 1867-68	45,417	5,165	56	25,079
1868-69 to 1877-78	48,379	2,344	243	26,006
1878-79	48,206	3,911	—	26,185
1879-80	45,460	6,858	—	24,843

TWELVE VILLAGES.

Before Settlement—				
1839-40 to 1848-49	15,786	8,079	1,011	15,335
After Settlement—				
1849-50 to 1858-59	25,372	9,134	57	9,002
1859-60 to 1868-69	31,450	3,209	—	10,640
1869-70 to 1878-79	32,913	915	24	10,983
1879-80	31,600	2,924	—	10,688

In the latter of these statements there are fluctuations of area in uncultivated lands which the Superintendent's Report does not afford any means of accounting for.

For maximum rates of dry-crop assessment it was proposed to divide the fifty villages into three groups. The first consisted of nine villages near the market town of Sangamner, for which a rate of Rs. 2, which had already been sanctioned for the adjacent villages, was proposed. For the second group, lying mostly in the south, but partly also in the north, a maximum of R. 1 12a. was proposed. They were equally well off for communications, the former having the high-road from Púna to Násik, and the latter that from Ahmadnagar to Násik, passing through them. The third group comprised only three villages on the west, which, on account of their bad water-supply, had been lowered in the course of the first settlement from R. 1 12a. to R. 1 8a. For these the new rate proposed was R. 1 10a. Lands under existing wells were dealt with under the general orders of Government, and for channel-watered land the maximum of Rs. 8 per acre proposed gave an average rate of Rs. 3 14a. 3p. Between the first and second settlements the area of rice cultivation had increased from twenty-two acres in two villages to 175 acres in seventeen. The maximum of Rs. 8 gave an average of Rs. 2 2a. 8p.

The following statement shows the general result of the revision approximately, the calculations not having been made in detail when the Report was sent in :—

Class.	Villages.	By First Settlement.		By Revision Settlement.						Increase per cent.
		Occupied Land.		Occupied Land.		Waste.		Total.		
		Area. Acres.	Rs.	Area. Acres.	Rs.	Area. Acres.	Rs.	Area. Acres.	Rs.	
1	9	10,950	9,328	13,844	11,860	182	81	14,026	11,941	27.1
2	38	64,132	25,697	77,046	36,968	1,055	259	78,101	37,227	43.9
3	3	1,978	506	2,367	704	—	—	2,367	704	39.1
	50	77,060	35,531	93,257	49,532	1,237	340	94,494	49,872	39.4

It will be seen that the small quantity of land that still remained unoccupied was of a very inferior description, its assessment averaging only 4a. 4p. the acre. The increase after the rates were

calculated out in detail would probably be 1 or 2 per cent. less than the 39·4 per cent. shown above. The difference between the general average assessment on the entire arable area was about an anna per acre, the first settlement having made it 7a. 5p. and the revision 8a. 6p.

In forwarding the Report to Government, the Survey Commissioner proposed to transfer two villages from the Superintendent's first to the second group, and to lower the rates in the greater portion of the latter to R. 1 8a. from R. 1 10a. Four villages from this group he proposed to transfer to the third, and to lower the maximum of the group to R. 1 6a. He thought that these changes would reduce the increase of 39·4 per cent. estimated by the Superintendent nominally to 28·5, but really to a good deal less, probably only 19·8 per cent., and that the average rates on the whole area under the old and new settlements would be 6a. 6½p. and 7a. 10½p. respectively.

In sanctioning these modifications, and giving the usual guarantee up to 1904-5, Government directed that the new rates should not be levied in full till 1883-84. In the two intermediate years, 1881-82 and 1882-83, the old settlement rates plus two annas in the rupee were to be levied. The same guaranteed period had been sanctioned in the eighty-two villages settled in the preceding year, and the settlement in the whole subdivision would thus expire at the same time. For five villages originally belonging to Násik a revised settlement had been sanctioned with that of the remainder of Sinnar in 1875.

In the remaining eighty-two villages revision had taken place in 1880. They were divided for maximum rates into three groups. The first consisted of fifteen villages, with a rate of Rs. 2, lying to the west of the high-road from Púna to Násik, and possessing the best climate. A good many of them had easy access to Sangamner by that road.

The next group, with a maximum of R. 1 14a., consisted of eight villages close to Sangamner itself, and forty-three others, with a maximum of R. 1 12a. All were in the centre of the subdivision, but had not such a good rainfall as those of the first group.

The third group, containing the remaining sixteen villages

lying more to the eastward, and consequently having a more uncertain rainfall, had a maximum rate of R. 1 10a.

In the course of the first Survey lease the garden land in existence at the settlement, 2,295 acres, of which 2,142 were Government land, had risen to 7,566 acres, of which 7,208 were Government land. 169 acres of this were channel-watered, and, with a maximum of Rs. 8, gave an average of Rs. 3 2a. 11p. The general average on all lands came to 11a. 8p., as compared with 10a. under the first settlement. The general increase by the new rates was 31·9 per cent.

The general result was as follows :—

Class.	Villages.	Former Survey.		Revision Survey.						Per-cent. Increase.
		Occupied.		Occupied.		Waste.		Total.		
1	15	Acres.	Rs.	Acres.	Rs.	Acres.	Rs.	Acres.	Rs.	37·4
2	8	20,312	16,444	23,686	22,328	672	273	24,358	22,601	34·4
3	43	6,527	4,878	7,500	6,529	66	31	7,566	6,560	30·2
4	16	51,726	30,154	59,758	38,532	2,437	740	62,195	39,272	37·7
	82	30,849	16,849	32,872	22,701	1,626	508	34,498	23,209	31·9
	82	109,414	68,325	123,816	90,090	4,801	1,552	128,617	91,642	31·9

SRIGONDA.

In the Táluka of Srígonda the original settlement came under revision in 1889. That settlement had been introduced at various periods from 1851-52 to 1874-75, and revision should have been made in 1884-85, but was deferred in order that the Táluka, which had suffered severely in the famine of 1876-77, might recover fully from its effects. The villages coming under revision were $78\frac{1}{2}$ in number, the remaining $7\frac{1}{2}$, that make up the total of 86 constituting the present Táluka, being alienated. The total difference in area between the original and test measurements amounted to only ·7 per cent. In the details there were found to be 4,638 acres less in dry-crop and 5,109 in unassessed lands, and 7,057 acres more under the head of garden.

The old classification of soils was found to be on the whole satisfactory, and was mostly adjusted with a view to enhance the

valuation of the best soils in accordance with the most recent standards.

Srīgonda lies in the south-west corner of the Ahmadnagar Col-lectorate, and adjacent to the Tálukas of Bhímthadi and Sirúr in Púna. Its rainfall is not uniform throughout the area, but varies rather in regularity than in quantity, being as a rule more favourable for late than for early crops. The most common crop is *siálu*, or cold-weather *javári* (*Holcus sorghum*), but safflower, wheat, and gram are raised for export. There is a large area, 13·4 per cent., taken up with grass and fallow, and this affords pasturage for considerable numbers of cattle.

It has benefited greatly by recent improvements in the means of communication. At the time of the first settlement it had no made roads, whereas the loop-line of the G. I. P. Railway from Dhond to Manmár, with three stations within its limits, now traverses its entire length, and there are several roads which greatly facilitate intercourse and traffic. A good deal of oil is prepared from safflower seed, and forms, with wheat and gram, the chief exportable produce. The chief local market is Srīgonda, a dépôt where merchants collect the produce of the country to the eastward and despatch it from the Pimpri railway station to Púna and the coast. There are also weekly markets held at five other villages. Population has not increased to the extent ascertained in other parts of the country, probably on account of the famine of 1876-77, and its density is still only eighty-nine per square mile. Houses, however, are more in number by 23 per cent. in the better descriptions, and 70·1 per cent. in thatched dwellings. Agricultural cattle have increased by 37·7 per cent., milch cattle and their young by 29·3, and sheep and goats by 11·5. There is still, as noted above, a large area suited for pasturage available. Improvements in means of communication have brought about an increase of carts from 760 to 1,155, an average of sixteen to each village; and a proof of the material prosperity of the people is contained in the fact that wells and water-lifts have risen in number from 1,974 to 2,921. All this is the more remarkable that population in the famine year fell by 12,844, agricultural cattle by 10,196, and milch cattle by 11,319.

Although 78·2 per cent. of the total number of Survey fields are

said to be in possession of the recorded holders, the real holders are said to be the money-lending classes, a result that is unfortunately very sure to be the result of giving full proprietary rights to the ryots in their lands, which have acquired a high saleable value. This is proved by 301 sales in which land of the area of 7,115 acres, of the average assessment of 5a. 11p., realised twelve times the assessment, and by other land assessed at Rs. 3,726 having been taken as security for Rs. 34,225 advanced on mortgage.

Prices of agricultural produce have advanced from 100 to 150 per cent. The result of prosperity is shown in the area of cultivation being now 147,886 acres, assessed at Rs. 53,756, and that of waste 2,656 acres, valued at Rs. 674, as compared with 80,974 acres (assessment Rs. 33,350) of the former, and 77,358 acres of the latter (assessment Rs. 24,916), in 1852-53. The waste assessed land still unoccupied is of inferior quality, assessed at about 4a. the acre. The demands of the State have been realised without difficulty, and remissions have seldom had to be given except in the famine year. In the three years preceding revision there were but three cases in which recourse was had to the sale of occupancy rights for the collection of the revenue.

For revision purposes three groups of villages have been formed, one of thirty-one villages forming the northern portion of the Táluka, which has the best climate, soil, and means of communication; a second, of twelve villages, in the north-eastern corner, which are not quite so well circumstanced in the last particular; and a third, of 35½ villages round Srígonḍa, comprising the whole south of the Táluka. The maximum rates for these are respectively R. 1 4a., R. 1 3a., and R. 1 2a. Those under the old grouping varied from 12a. to the same maximum of R. 1 4a. They are similar to the rates adopted in neighbouring villages of other Tálukas.

At the original settlement 3,833 acres of Government land were under the head of garden, and were assessed at Rs. 9,597. There are now 10,529 acres, assessed on a maximum rate of Rs. 8 at Rs. 21,370. Whilst the average of those under wells is 15a. 10p., that on lands watered from channels is Rs. 4 3a. 5p., that which lies under new wells having been brought down within the highest dry-crop rates, and that under new wells having, according to

law, no new assessment placed on it. The general financial result is to raise the average per acre on all lands from 6a. 10p. to 8a. 11p., and to increase the demands on Government lands from Rs. 1,07,450 to Rs. 1,40,486, whilst there is a lowering of quit-rents on alienated lands of Rs. 3,635. The increase on the former is 30·7 per cent.

For sufficient special reasons in a few villages an increase of more than the 66 per cent. allowed by the rules as the maximum limit on revision in single villages has been sanctioned.

KARJAT.

The Táluka of Karjat, lying to the east of Srígonda, and bounded on the east by the Nizám's territory, and on the south by the Tálukas of Bhímthadi in Púna and Karmalá in Sholápur, is the last of the Collectorate brought under revision. This has been delayed for the reason given above under Srígonda, as it suffered equally from the effects of the famine of 1876-77. The seventy-two villages comprised in it belonged formerly to the Korti Táluka, and, with two exceptions, were originally settled in 1852-53.

The total difference in area according to the two Surveys is only 3 per cent. on 307,187 acres. Dry-crop and unassessed land have been found less by 3,403 and 3,342 acres respectively, and garden land in excess by 5,837 acres. This increase is accounted for by the number of wells being greater by 86·5 per cent. In cases where the area of land varied more than 15 per cent., 12 were due to errors in the old measurement, and 141 to changes arising from the action of floods and other causes. Most of the old classification was found to be good, and only 7·8 had to be done over again to adapt it to recent standards.

The Táluka is the worst off in the Ahmadnagar Collectorate in the matter of rainfall; not so much in the total quantity of rain as in the irregularity of its fall, especially in June, at the beginning of the cultivating season. Only 14·6 per cent. of its arable area is thus devoted to early, whilst 57·9 is under late, crops. The

remaining 27·5 per cent. is recorded under grass and fallow, but is really unarable, and fit only for grazing, a fact which may account for the large numbers of milch cattle, sheep, and goats kept by the people.

Although the railway does not run through it, four of the stations of the Dhond and Manmád line are within easy reach of most of its villages, and communication between different parts, available at all seasons, has been established by several new roads. The best that the Survey Superintendent could say for it in 1854 was that several of the country tracks were passable for carts, and might be converted into good roads. Improvement in this respect is especially shown in the increase in the number of carts from 310 to 662, giving an average of six to a village, although the pressure of population is only about 105 to the square mile of the arable area.

The particulars in which an advance is least shown are in population and agricultural cattle. Whilst the latter have actually somewhat decreased, the increase in the former is only 1·5 per cent., which is much less than in Srígonḍa even, and contrary to the experience of all other parts of the Deccan. It may probably be attributed partly to the evil effects of the famine, from which a comparatively poor population had much difficulty in recovering: but, on the other hand, houses of a superior description have increased by 35·3 per cent., and thatched houses by 11·2, which renders the small increase in population difficult to explain. The increase in the highest group of fourteen villages has been 15·6 per cent., and in the third 8·2; while in the second, of twenty-five villages, there has been an actual decrease of 8·2 per cent., accompanied by an increase in superior houses, which is not quite counterbalanced by the decrease in houses of an inferior kind. The decrease of inhabitants through the famine is returned in the three groups as 28, 37·8, and 35·8 per cent. respectively, and in agricultural cattle 41·4 per cent. in the whole Táluka. To contrast with these, although the loss in milch cattle amounted to the large number of 79·9 per cent. in 1877-78, the increase during the whole period of the lease was 33·3 per cent. On the whole these statistics appear to be of doubtful authenticity.

Prices have undoubtedly risen by about 100 per cent. since the

first settlement was introduced, but the returns of registration do not show satisfactorily the multiples of the Survey assessment for which lands have been leased, sold, and mortgaged, so as to allow of a judgment being formed of their having acquired a saleable value. The revenue was, however, collected for the three years preceding the settlement without the occupancy right in land being sold in any single case. Remissions had, with the most trifling exceptions, only to be granted in the famine year, and the increase in cultivated area between the year of settlement and 1888-89 was 58,970 acres. This could not have been brought about with such a small increase of population without largely improving the resources of the cultivators.

For maximum rates of dry-crop assessment the Táluka has been divided into four groups at R. 1 3a., R. 1 1a., 14 and 13 annas respectively. This grouping differs but little from that adopted at the original settlement. The first group adjoin and are of the same kind as those of the Srigonda Táluka, assessed at the same maximum, and have the best climate and most favourable means of communication. The second group run from north-west to south-east, and have within or close to them the chief market towns of Mirajgón and Karjat; these, under the old settlement, had maximum rates of 14 and 12 annas. The third group lie in two blocks, one almost surrounding the second, and the other on the south-west boundary along the Bhúna river and adjacent to Bhímthadi in Púna, where the villages have a maximum of a rupee. The former of these blocks has the market of Mirajgón available, and the latter that of Karmála in Sholápur. in addition to having easy access to Rásin and the railway. They had, under the old settlement, a maximum of 12 annas for the most part, and have now been raised to 14. The fourth group have inferior means of communication, and not such a good climate as those of the third, and have a maximum of 13 annas. The result has been to raise the assessment of the four groups respectively by 36·8, 32·3, 35·9, and 27·3 respectively.

The area of land under garden has risen in the course of the lease from 2,143 to 7,875 acres in Government land. At the maximum rate of Rs. 6 adopted for irrigated land, that under well irrigation will have an average rate of 11a. 6p. in consequence

of what is under old wells having been assessed at only dry-crop rates. The average on land watered from channels, 284 acres, will be Rs. 2 9a. 9p.

The general financial result will be to increase the demands of the State from Rs. 53,952 to Rs. 69,480, and there will remain for expansion of cultivation a small area of inferior land, 3,098 acres, assessed at an average of 2a. 8p. The increase is 28·8 per cent., well within the limit of 33 per cent. fixed by the rules as the maximum of enhancement on a revision for a Táluka.

The quit-rent on alienated lands has risen from Rs. 3,036 to Rs. 4,043.

The average rates under the original and new settlements are 4a. 4p. and 5a. 7p., an increase of 1a. 3p. There is a very large area, 90,905 acres, of unarable land, which affords extensive pasturage ground for the large number of milch cattle and sheep and goats, 65,405, in the possession of the people.

In the year 1889 a revised settlement was carried out in nineteen scattered villages of the Sanganner and Kopargáo Tálukas originally settled in different years between 1851-52 and 1856-57. The circumstances under which those two Tálukas were revised, the rates of assessment adopted, and the effect of those rates on the Government revenue have already been described in detail, and need not be repeated. The rates adopted in the nineteen villages are the same as those of others in their immediate neighbourhood now in force under the revision.

In consequence of the heavy losses sustained by these Tálukas during the famine of 1876-77, special remissions of demand were sanctioned by the Secretary of State for India in 1880, for three years, and these remissions having since then been specially continued, the application of the new rates has had the result of raising the increase in most of the present villages above the limits permitted by the rules at revised settlements. The special consideration shown in the case of the Tálukas in question, as already described, has accordingly been extended to these isolated villages.

BÍJÁPUR (KALÁDGI):

THE BÍjÁPur Collectorate, the most easterly in the Bombay Presidency, lies between 17° 28' and 15° 48' N. lat. and 75° 24' and 76° 31' E. long. It contains an area of 5,757 square miles, and a population of 110 to the square mile. It is in length about 110 miles, and varies from fifty to seventy-five miles in width from east to west. Five of its subdivisions are on the north, and three on the south of the river Krishna. It is bounded on the north and east, and partly on the south, by the Nizám's territories. On the west it touches Belgám and several small Native States lying on the east of the latter, and on the south Dhárvár and the small state of Rámdurg. Its subdivisions, eight in number, are Indi, Sindgi, BÍjÁPur, Bágvádí, Mudebhál, Bágalkot, Bádámi, and Húngúnd. Its vernacular language is principally Mahratti, but towards the south it verges on Kánárese.

BÍjÁPur, or, as it was called until lately, Kaládgi, was first formed into a Collectorate in 1864, out of subdivisions formerly included in Sholápur and Belgám. It mostly fell into the hands of the British in 1818, on the overthrow of the Peshvá, Bájiráo. Between those two dates a good many villages accrued to it from lapses, exchanges, and confiscations; but since the former year no territorial changes of any extent have taken place, and it still consists of its original eight subdivisions. There are, in consequence of its having been formed into a separate district only in 1864, no Reports on it during the early years of British rule separate from what will be given under the head of Dhárvár, to which the three most easterly Belgám subdivisions of Bágalkot,

Bádámi and Húngúnd belonged from 1818 to 1837; from the latter year they were attached to Belgám till 1864, when Kaládgi became a separate Collectorate. Some account of the early revenue history of the Sholápur portion has been given under the head of that district.

From the year 1825, six or seven years after the introduction of British rule, to 1843-44, when the first Revenue Survey settlement was commenced, the area under cultivation in the four subdivisions of Bádámi, Bágalkot, Húngúnd and Bijápur rather fell off than increased; the revenue in the same period fell from Rs. 3,19,959 to Rs. 2,46,261, while the remissions in the last year were still as high as Rs. 60,500. The average of revenue for the same years was Rs. 2,57,440, and of the remissions Rs. 96,110.

The settlement in 1843-44 extended to 132 Government villages in the old Indí subdivision, spread over the subordinate divisions of Indí, Álmel, and Chadchan. The population was about sixty-four to the square mile. The rainfall was slightly heavier than that of Indápur, the Survey rates of which were the standard to which those of all the neighbouring country were referred. The market of Indí was said to be equal to that of Indápur, and better than those of Mohol or Mádha as far as *javári* was concerned, but inferior to them as regarded *bájri*. The statistical information as to former cultivation was so untrustworthy that the average collections could not be accurately ascertained. It was therefore considered advisable rather to under- than over-assess it. For the Indí villages, accordingly, the same maximum rates of dry-crop assessment were proposed as had been sanctioned for Indápur, and for the Álmel villages rates lower by 10 per cent. These would give the former an average of 5a. 9p. per acre, and for the latter one of 5a. 2p.

These averages compared with those of other neighbouring subdivisions were as follows:—

	a.	p.
Indápur	5	11
Mohol	5	11
Mádha	5	8
Sholápur	6	7
Bársí	7	7

The general result of the rates proposed for Indí and Almel was as follows, as compared with the revenue under the existing system for 1842-43, or ^{Rs.} 64,197

INDÍ—

On the arable area according to	Rs.
the new rates	57,901
On the cultivated area	32,703

ALMEL—

On the arable area	37,690
„ cultivation	24,581

Total on cultivation 57,284

Giving a decrease of 6,913

On the average of ten years the decrease was 10,251

The Revenue Commissioner did not consider the existing assessment on the whole heavy, but it was unequal on account of the assessment on land held on the *cháli* tenure, to be described under Dhárvár.

The Superintendent of Survey proposed that the extra assessment that would fall, under the new system, upon the lightly-assessed *cháli* lands should be only levied gradually. This was not concurred in by the Collector. He stated that the *cháli* rates were originally only the full rates paid by the hereditary ryots (Mirásdars) as opposed to *ukti* (lump sums) or *batgutú* (low make-weight) rates, paid according to their agreements by strangers. Village officers holding large areas of service lands were compelled not only to pay *cháli* rates, but to cultivate Government lands which they were not allowed to relinquish. Hence such rates became customary as an indirect means of taxing alienated lands, and were put on on various pretexts, so as to render the assessments very unequal. This was probably not unjust in the case of alienated lands, which had in most cases been obtained possession of illegally.

Government, in sanctioning the proposed rates, said there was no occasion to levy the extra rates on the *cháli* lands by degrees. If the new rates were fair, and the ryots did not choose to accept

them, they had the option of throwing up their lands. The Superintendent had proposed that he should be allowed to settle the levies of the village officers (*balotá hak*) on a system by which their amount would vary according to the out-turn of crops. Government sanctioned the abolition of the payments levied from village officers, but directed that the latter should no longer be allowed to collect the levy made by them from the ryots for the purpose of meeting those payments.

The maximum rates, which were sanctioned for thirty years, were 12a. for Indí, as in Indápur, and 10a. 10p. for Almél, with a maximum rate for garden lands of Rs. 2. The average rate for the Chadchan villages amounted to 5a.

In 1844-45, 193 villages in the petty divisions of Bardol, Halsangi, and Horti in Indí were measured and classified, and revised rates introduced into the two former. The population of the Government villages was about seventy-eight to the square mile. The people were fairly well off, and there was a good demand in the local markets for its cotton, which was not of superior quality. The rates proposed for Bardol and Halsangi were the same as those of the rest of Indí; but in a few villages there was a graduated increase of 5, 10, and 15 per cent. beyond these. For Horti a reduction of 12 per cent. below these rents was proposed. The collections of former years were estimated roughly at Rs. 45,000, and did not include cash payments to village officers levied directly from the cultivators before 1836. The gross rental at the proposed rates was estimated at Rs. 71,498, or Rs. 11,404 above former collections. The estimate for the cultivated area was Rs. 46,349, or 3 per cent. beyond them. The rates for Bardol and Halsangi were sanctioned by Government, and those for Horti postponed for further consideration.

In the same year revised rates were proposed for the portion of the subdivision of Mudebihál under the Mámlatdár's charge. The maximum rates proposed by the Survey officers were 20 per cent. above those sanctioned for Indápur, and the classification of inferior soils was raised so as to assimilate it more closely to that of the better soils, which would tend to increase the rental generally.

In the revision which took place on the expiration of the thirty

years' guarantee, it was found that there had not been sufficient difference made between the valuation of superior and inferior soils, and the reverse process to this had to be adopted. In this case the reason assigned was that the rainfall was more certain, thus admitting of the extensive cultivation of cotton, and tending to increase returns from soils of low value. The statistics relating to prices were not very reliable, but that of *biñri* was about equal to that of Indápur, and higher than that of Indí, while that of *javári*, which was mostly consumed locally, was higher than in either of those districts. A little *biñri* was exported.

The Collector was of opinion that, as the Survey revision would probably throw more grain on the market, its price might fall, but this would not affect the price of cotton, which was an article of export. On the whole, he did not think that the prices would warrant an increase of assessment, and proposed a general rise of only 15 per cent. These reasons were not considered conclusive by Government, who sanctioned the proposals of the Survey officers, remarking that the rates could be lowered if found to be too high.

The average rate according to these proposals would be 7a. 8p., whereas the payments for the last six years had averaged 9a. 7p. On the cultivated area the assessment would be Rs. 31,267, or Rs. 3,020 below the actual collections of 1842-43, and Rs. 4,027 below the average of twenty-two years. In addition to this, the cessation of direct levies by district and village officers would give a decided relief to the ryots. The Superintendent estimated that Rs. 4,000 from the assessment of *cháli* lands would be transferred to alienated lands, and about Rs. 3,000 would have to be paid out of the revenue as compensation to district and village officers for the loss of their *gugri*, or levies in kind, hitherto levied directly from the cultivators.

Some relaxation of rates was proposed for the northern villages, so that the full rates would be confined to the better parts of the district. Over the whole area of the district the rental would be Rs. 68,593, which would be reduced to Rs. 64,766 (inclusive of *sáyer*) by an allowance of one-seventh for waste. This would be an increase over the collections of 1842-43 of Rs. 15,354, over those of six years of Rs. 12,010, and over those of twenty years of

Rs. 14,693. The same rates for garden lands were proposed as in other districts.

Revised rates for the petty division of Tumbgi, in Mudebihál, were soon afterwards proposed. These were, as in the principal division noted above, 20 per cent. above the Indápur and Indí rates, but the modification in the classification scale made use of in the remainder of the subdivision to raise the value of inferior soils was not adopted. The most fertile portion of these villages lay in the valley of the river Dôn (Dhone).

The highest rate of 20 per cent. above Indápur was proposed for the villages in the immediate neighbourhood of the market town of Tálíkoti, and one of 8 per cent. less for those more than twelve miles from that place. The Collector objected to more than one set of rates in the same subdivision, and proposed a general maximum of 15 per cent. above those of Indápur, with a special addition of 5 per cent. in the Dôn villages. Of this the Superintendent of Survey did not approve, on the ground that the classification of soils had already sufficiently provided for the difference in value in the Dôn soils. He estimated that his proposals would give an average of 7a. over the whole arable area, and of 8a. on cultivation, the old average per acre having been 7 $\frac{3}{4}$ a. The average collections had been Rs. 32,686, and on dry-crop land alone Rs. 23,361; but in 1839-40 the collections had risen to Rs. 32,256. By the new rates the assessment on the cultivated area would be Rs. 33,775. The *cháli* rates were estimated to have been R. 1 5a. 3p. per acre, but had only been paid out of alienated, held conjointly with Government, lands. The average *katguta* or make-weight rates had not exceeded 6 $\frac{1}{4}$ a., and, with about 1a. per acre in grain paid to the hereditary officers, brought the average up to the 7 $\frac{3}{4}$ a. given above. For garden rates a maximum of 8a. less than in the districts already settled was proposed.

In the Government resolution on these conflicting proposals, sanction was given to the general rate being 20 per cent. above that of Indápur, and, on the recommendation of the Revenue Commissioner, to the extra 5 per cent. on the Dôn villages: and it was remarked, with reference to the Superintendent's objection that the extra fertility of the land in them had been already provided for in the classification of soils, that the criteria of climate,

soil, and nearness to market were not entirely to be depended on in fixing the assessment on lands. The cost of conveying a cart-load of produce for twenty miles was not materially more than it would be for twelve. They found that of late years *cháli* land had been abandoned on account of the high assessment put upon it, and that paying *katguta* rates had been taken up, so that these rates were evidently the nearest approach to a fair standard of valuation.

The modification of the classification scale adopted in the Mámlatdar's division of Mudebihál, with a view to bring the value of superior and inferior soils nearer together, was the reverse process to what it was found necessary to adopt at the revision on the expiration of the thirty years' guarantee; the great fault of the early classification had been shown by experience to be that the inferior soils had not been classed low enough to give the fair relative values of them and the better kinds of soil. The resolution of Government authorising the increase of 5 per cent. in the maximum rate of a few villages on account of the alleged greater fertility of their soils, in opposition to the Superintendent's opinion, was passed in the infancy of the Survey system, and before it was understood how completely a good classification of soils does provide for their fair relative valuation, apart from the criteria of climate and nearness to market, which afford ample grounds, in connection with prices, realisations of revenue, &c., for fixing money rents.

In 1845 fifty-seven villages in Hippargi were brought under revision. The country was divided into three belts, for the most northerly of which, where the rainfall was most uncertain, the same maximum rates as in Indí were proposed; for the central belt, in which it was more certain, an increase of 5 per cent. over those rates, and for the southern belt one of 10 per cent., as in this the rainfall was comparatively certain. The Collector proposed that 5 per cent. should be added in the Dón villages. Exclusive of a portion of the tract in which the assessment had been unusually low, the average former rates had been $9\frac{1}{4}$ a. and the collections $9\frac{1}{4}$ a.; inclusive of that portion the average had been 8a. 1p. The average at the proposed rates would be about $7\frac{1}{2}$ annas, that in Indí having been 6a. 1p., and that of Almel

6a. 3p. The estimated immediate financial result would be a reduction of Rs. 4,864 below past collections. The gross rental on arable land was estimated at Rs. 10,095, or Rs. 47,405 above Rs. 53,500, the average collections of the twelve years ending in 1843-44. The Survey proposals were sanctioned, with the addition of the 5 per cent. in the Dôn villages suggested by the Collector.

In 1845 a revised settlement was introduced into eighteen villages then belonging to the Mangoli subdivision of the Sholápur Sub-collectorate: The Superintendent reported that the rainfall in this tract was superior to that of Indí, but the markets were not so good. Its situation on the whole was about equal to that of the northern portion of Hippargi, where the Indí rates, the same as those of Indápur, had been adopted. He accordingly proposed the same rates for Mangoli, with an addition of 5 per cent. for the villages in the south-east portion. The Collector, on the other hand, objected to any difference being made between the north and south villages, and proposed a general increase of 5 per cent in all, with an extra 5 per cent. for the villages in the Dôn valley.

The Superintendent estimated that his proposed rates would give an average of 8a. per acre on the arable area and of 9a. on cultivation, and that the immediate reduction on the rental of 1843-44 would be Rs. 6,394. The gross Survey rental was estimated at Rs. 38,264, or Rs. 14,652 above the collections of 1842-43. The average collections per acre for 1839-40 and 1842-43 had been respectively 11a. 9p. and 11a. 8p. The garden rates proposed were, as in other districts, settled at Rs. 2 an acre.

The Superintendent's rates were supported by the Revenue Commissioner, but Government approved of the Collector's proposals. In a subsequent Resolution it was explained that Government did not sanction an increase of 5 per cent. in the Dôn valley rates, but adopted the Sholápur rates, which were 20 per cent. above those of Indápur.

A separate Report was submitted for two other divisions of Mangoli named, after villages of those names, the Bágevádi and Nirgundi petty divisions. In the latter the revised scale of classification to raise the relative value of the inferior orders of

soil was adopted on account of a more certain rainfall. The rates proposed were 10 per cent. above the Indápur rates. The Collector proposed that the increase should be only 5 per cent., and if one of 10 per cent. were adopted, that the new scale of classification should not be made use of; but the Revenue Commissioner supported the Superintendent's proposals.

For that part of Hippargi bordering on Bágevádi a 10 per cent. increase had been adopted, and prices in Indí were much the same as in Bágevádi. Going thence to the south-east towards Mudebihál prices gradually rose, and an increase of 20 per cent. had been adopted for the latter, so that the proposed increase of 10 per cent. for Bágevádi appeared reasonable. The average, according to these rates, would come to about $7\frac{1}{2}$ a. on Bágevádi, but probably only to $6\frac{1}{2}$ a. on the whole district. In Nirgundi the average would probably be 8a.

The general financial results, it was estimated by the Superintendent, would be as follows:—

On the cultivated dry-crop area:—

	Rs.
Bágevádi	19,257
Nirgundi	6,235
	<hr/>
	25,492
Estimated garden land	400 at Rs. 2 per acre.
	<hr/>
	25,892

Previous collections estimated:—

	Rs.
Bágevádi	16,000
Nirgundi	5,177
	<hr/>

21,177 or an increase of Rs. 4,715.

But former collections were probably higher than this estimate. The reports of the revenue to the Pant Pratinidhi, under whom the villages had been, had been systematically under-stated. When the villages came into British possession, the low *káol* leases under which lands had been held were just falling in, but the rates were still continued; moreover, the leave then given to throw up land, which had been previously forbidden, resulted in

an immediate decrease of about Rs. 3,000 of revenue. If it had not been for these reasons former collections would have been greater. The proposals of the Superintendent were sanctioned by Government.

The subdivision of Bádámi, formerly under the Dhárvár Collectorate, though measured previously, did not come under settlement till 1850-51. The district was divided naturally into three divisions. In the south the plain was a continuation of the great Carnatic black soil country; in the centre was a rough, hilly tract, impassable for carts, but having the best rainfall, and in the north-west an undulating country.

There was a considerable spinning and weaving industry in the country, which enabled the holders of land, by supporting a non-agricultural class, to find a good local market for their field produce. The people were, however, on the whole not in a prosperous condition.

The Government villages in Bádámi had been surveyed in 1818, and in 1823-24 the measurements were made the basis of the revenue accounts. In 1825-26 a revision of assessment based on these measurements had been introduced. In the interval between 1826-27, after this revision, and 1849-50 the area under tillage had fallen from 80,600 acres to 73,329, and the collections increased from Rs. 55,729 by about Rs. 100,000, the remissions having fallen from Rs. 24,103 to Rs. 819. The 147 villages of the subdivision, inclusive of alienated, were grouped for maximum rates of dry-crop assessment under three classes.

For the central class, which comprised the manufacturing villages, a maximum of R. 1 4a. was proposed; for the second, of eighty-seven villages in the hilly tract, one of R. 1 2a.; and for the third, of the remaining fifty-seven, on the south of the Malprabha river and on the north and west borders of Bádámi, one of R. 1. There were 223 acres of garden land, in which a maximum of Rs. 5 gave an average of Rs. 2 14a. in place of a former average of Rs. 5 12a. 10p.; and 301 acres of rice, in which a maximum of Rs. 4 gave one of Rs. 2 1a. 7p. in place of the old average of Rs. 7 1a. 10p.

The general result, of which the details were as follows, reduced the rental from Rs. 71,384 to Rs. 51,225, or 28 per cent. :—

Class.	No. of Villages.	Old Rental.	Survey Rental.						
			Cultivated.		Average Rate.	Waste.		Total.	
		Rs.	Area. Acres.	Assesst. Rs.	a. p.	Area. Acres.	Assesst. Rs.	Area. Acres.	Rs.
1st	7	5,646	4,979	3,150	10 1	3,923	2,636	8,902	5,786
2nd	87	34,832	38,627	24,089	9 11	34,217	18,501	72,844	42,590
3rd	53	50,856	42,202	23,986	9 1	31,312	19,129	73,514	43,115
Total	147	71,334	85,808	51,225	9 6	69,452	40,266	155,260	91,491

It will be observed that in these villages, which came under the Southern Mahratta Country Survey, the system of grouping villages for maximum rates of dry-crop assessment was adopted, whereas in the Sholapur villages, under the Deccan Survey, the plan of assessing from one maximum deduced from the standard of the Indapur rates was made use of.

BÁGALKOT.

In 1850-51 the assessment of the 124 Government villages in the subdivision of Bágalkot, immediately north of Bádámi, and between it and the Krishna river, was revised. The only really good soil in the subdivision was to be found in the valley of that river and in that of the Ghatprabha, which fell into it. The communications of the tract were so bad that hardly any wheeled vehicles existed. Little cotton was grown, although the black soil near those two rivers was suited to it. It had, however, the advantage of the two local markets of Bágalkot and Kaládgi for the disposal of its cereals. Irrigation was little resorted to, from the want of water.

Shortly after the British conquest it was measured under Mr. Thackeray's survey, and the assessment of thirty-seven villages was revised by Mr. Stevenson in 1827-28. With this exception, the old system of assessment continued in force up to the time of the revision.

Between 1827-28 and 1849-50, the year before the revision, the area under tillage had fallen from 75,648 acres to 64,066, and the collections increased from Rs. 41,854 to Rs. 53,506, remissions

having fallen from Rs. 45,444 in the former to Rs. 1,708 in the latter year. For maximum rates of dry-crop assessment Bágalkot was divided into four groups, the first consisting only of the town of Bágalkot and two villages close to it, for which R. 1½ was proposed as the highest rate. The second group, of thirty-two villages, was in the valley of the Ghatprabha, and for this the maximum was R. 1 2a. The maximum of the third group, which surrounded the second, was R. 1, and consisted of twenty-nine villages; and the remaining sixty, in the Ghatprabha and Krishna valleys, formed the fourth group, with a maximum of 14a. For garden land the highest rate was Rs. 5, and for rice land Rs. 4, the averages severally being Rs. 2 5a. 2p. and R. 1 12a. 8p. The general result of the adoption of these rates was a reduction in the assessment from Rs. 59,224 to Rs. 42,890, or 27 per cent.

The details for the four groups of villages were as follows :—

Class.	No. of Vil- lages.	Old Survey.	New Survey.							
			Cultivated.			Waste.		Total.		
			Area. Acres.	Rs.	Avg. rate a. p.	Area. Acres.	Rs.	Area. Acres.	Rs.	
1	3	2,937	1,426	1,317	14 9	1,260	1,029	2,686	2,346	
2	32	16,338	16,125	11,246	11 2	17,762	10,495	33,887	21,741	
3	29	16,167	18,364	11,338	9 10	15,880	8,498	34,244	19,836	
4	60	23,782	35,059	18,989	8 8	35,411	17,132	70,470	36,121	
	124	59,224	70,974	42,890	9 8	70,313	37,154	141,287	80,044	

About 50 per cent. of the arable area was thus waste.

HUNGUND.

The subdivision of Hungund, in the south-east corner of the Collectorate, was next revised. The 142 Government villages contained in it were measured and classed in 1848-1850, and the revised rates introduced in 1850, but not sanctioned till 1855. It had been measured under Mr. Thackeray's orders soon after the accession of British rule, and from 1825 the measurements formed the basis of the revenue accounts, but the assessments had not been systematically revised. The rainfall was regular, and a

failure of crops was seldom known. A good deal of cotton was grown, and much of it was worked up by local spinners and weavers, who constituted a considerable non-agricultural population. The population on the whole numbered 145 to the square mile. Carts were little used, although there were several fair local markets, both for raw produce and silk and cotton manufactures.

From 1826-27 to 1850-51 the area under cultivation had fallen from 96,568 to 92,897 acres (in 1849-50 there were about 3,000 acres more), and the collections had risen from Rs. 65,496 to Rs. 73,528, remissions having fallen in the same period from Rs. 16,816 to Rs. 67.

The villages were thrown for dry-crop assessment into two groups, one with a maximum rate of a rupee, and a second with one of 14a. The former consisted of twenty-three villages near the hills in the western portion of the subdivision, and, in addition to a good climate, had the advantage of a good market. The latter comprised the whole of the remaining 119 villages, which were not so favourably situated. In fifty-two villages there were 309 acres of poor garden land under irrigation from wells. The highest rate proposed for this was Rs. 2 12a., giving an average of R. 1 8a. 8p. in place of the old one of Rs. 2 5a. Of rice there were 454 acres in thirty villages, and the maximum rate proposed gave an average of R. 1 12a. 4p. as against R. 1 15a. 3p. under the old system. On the whole the revision lowered the rental from Rs. 81,339 to Rs. 64,041, or 21 per cent., as shown below :—

Class.	No. of Villages.	Old Survey.	New Survey.							
			Cultivated.				Waste.		Total.	
			Rental. Rs.	Area. Acres.	Rental. Rs.	Acre rate. s. p.	Area. Acres.	Rental. Rs.	Area. Acres.	Rental. Rs.
1	23	11,032	12,000	7,473	9 6	5,872	2,713	18,472	10,186	
2	119	70,207	96,082	56,568	9 5	44,972	23,361	141,054	79,929	
	142	81,239	106,682	64,041	9 5	50,844	26,074	156,826	90,115	

In this subdivision it will be seen that about one-third of the arable area was waste.

BIJAPUR.

In 1855-56 the eighty-eight Government villages of the subdivision of Bījápúr were revised. The rainfall in this tract was uncertain. The heaviest falls generally occurring in September and October, at the setting-in of the North-East monsoon, the country was more suited for *rabí* (spring) than for *kharif* (autumnal) crops. The most fertile portion was in the valley of the Dôn, where the salt element in the soil was rather favourable to the growth of wheat and some other crops. Much of the rest of the country was completely barren. The Húbli-Sholápur cleared road passed through the subdivision, but was only of use as far as the consumption of forage along it served to dispose of produce locally. In Bījápúr itself there was a small local market, but all other markets were from twenty to twenty-five miles beyond the limits of the subdivision. There was a very small non-agricultural population, and the people generally were poor. Wheeled traffic was almost unknown.

Bījápúr had been included in the territory made over to Sáltára on the overthrow of the Peshvá in 1818, and had been badly governed. Between 1821 and 1828 it had been surveyed, with the exception of a few villages added subsequently, in common with the rest of the Sáltára country, and the assessment revised, but the new rates could not be realised, and were given up. The district reverted to British rule in 1848, on the lapse of Sáltára, but both before and after this the nominal area of cultivation was only kept up on an understanding that a permanent reduction in the assessment (*lávni totá*) should be made. The amount of this was a matter of bargain with the district officials, and the real assessment was consequently not only high but very uneven. Remissions had accordingly to be given, and mostly went to those who were able to bribe the officials highest, and the weaker landholders had to bear the heaviest burdens. It is not a matter of surprise, therefore, that during the Sáltára régime collections varied from Rs. 28,120 to Rs. 88,610, and remissions from Rs. 8,060 to Rs. 97,500. After the re-introduction of British management remissions rather increased, and care was taken that they reached those for whom they were intended.

In 1849-50 the area under tillage was 1,43,911 acres, and fell by 1854-55 to 1,30,212 acres, the collections falling from Rs. 54,161 to Rs. 50,356, and remissions averaging Rs. 68,285 a year.

For revision the eighty-eight villages were divided into three groups, of seventeen, twenty-five, and forty-six respectively. The first, with a dry-crop maximum rate of 12a., was in the south-west of the tract, and was the most favourably situated both for climate and markets. The second, with a maximum of 10a., was in the centre; and the third, with a maximum of 8a., was in the east and north. On the lands along the Dôn the dry-crop rates were raised from 6p. to 3a., according to quality and distance from the river. Of irrigated lands under wells there were 958 acres, which yielded vegetables and a little sugar-cane, and on these an average of R. 1 15a. 11p. was proposed. There was rice land of an area of 512 acres under two reservoirs at the village of Mamdâpur, and on these a maximum rate of Rs. 6 gave an average of Rs. 3 10a. 3p. in place of old rates which varied from Rs. 2 to Rs. 20.

The general result of the introduction of these rates was to lower the assessment 27 per cent., from Rs. 87,538 to Rs. 63,764, as shown in the following statement:—

Class.	No of Villages	Old Rental.	Revised Rates.						
			Cultivation.			Waste.		Total	
			Area Acres	Rental Rs.	Average a p.	Area Acres	Rental Rs.	Area Acres	Rental Rs.
1	17	17,789	35,602	15,745	7 1	6,159	1,511	41,761	17,258
2	25	45,791	85,614	30,659	5 9	36,476	5,743	422,110	36,402
3	46	23,958	73,127	17,360	3 9	60,177	7,050	133,604	24,410
Total	88	87,538	194,683	63,764	5 3	102,812	14,306	297,475	78,070

About two-thirds of the arable area was thus under cultivation, but in the ten years ending in 1865-66 this had risen to 237,248 acres, and the collections from Rs. 66,270 to Rs. 88,080, the only remissions granted having been Rs. 7,764 in the year of settlement.

In 1859-60 the first revision was completed by the settlement of fourteen villages in the Chimalgi petty division of Bâgevâdi. They had formed part of the Kâgvâd estate, which lapsed in 1857.

They were at the time in a very depressed condition, and the communications of the tract with any but the small local markets of Chimalgi and Nirgundi were inferior. It had a small non-agricultural population. Statistics of revenue management were only available at the time of settlement for two years. The villages were arranged in two groups or five and nine villages, the former in the north and the latter in the south, with maximum rates respectively of 10a. and 12a. About 100 acres of poor garden land were assessed at an average rate of Rs. 2.

The revision resulted in a rise of 19 per cent. in the assessment, viz., from Rs. 4,807 to Rs. 5,757, according to the following details :—

Class.	No. of Villages.	Old Rental.	Revised System.					
			Cultivation.		Waste.		Total.	
		Rs.	Area. Acres.	Rental. Rs.	Area. Acres.	Rental. Rs.	Area. Acres.	Rental. Rs.
1	5	1,556	6,408	1,902	781	137	7,189	2,039
2	9	3,251	9,576	3,855	1,577	263	11,153	4,118
Total	14	4,807	15,984	5,757	2,358	400	18,342	6,157

By the year 1874, when the revision of the first settlement was commenced on the expiration of the Survey guaranteed period of thirty years, the result of the former in 450 villages in the north of the Collectorate down as far as the Krishna river had been to raise the area under tillage from 785,143 acres to 1,202,557, and the collections from Rs. 3,56,118 to Rs. 5,27,510, and to make the annual remissions altogether nominal. The second revision, which will now be described in detail, resulted, in 472 villages, in an increase of 29 per cent. over the first revision in the original subdivisions of Indí, Bījápúr, Bágevádí, and Mudebihál.

In 1874-75 the villages settled thirty years previously were taken in hand. They were 102 in number, and now belong, forty-

one to Indí, fifty-six to Sindgí, and five to Bījápur. In this tract of country the early fall of rain is uncertain, and that of September and October is more depended on. The easterly villages round Almel had some slight advantage in this respect over those in the west. On the other hand, the latter were nearer the local markets of Indí and Sholápur, which still continued the chief centres of trade, although two stations of the G. I. P. Railway, Dudhni and Karabgáon, lay about twelve miles from the border, on account of the obstacles presented in approaching those stations by the Bhíma river and the want of roads in the intermediate Nizám's and Akalkot territory. The villages in the east found their markets in the direction of Belgám and Míraj. In addition to these there were smaller markets accessible to every village, besides the larger ones of Indí, Almel, Támiba, and Sindgí.

In the thirty years the prices of produce had risen greatly; population had increased 50 per cent., cattle 64, carts 1,300 (from 36 to 504), houses 38, field cattle 61 cows and buffaloes 52, and wells 71 per cent. Sheep and goats, from diminished pasturage area, had fallen 26 per cent. Cotton and linseed were exported *viá* Sholápur to Bombay. There was a certain amount of local manufactures in the shape of native cloth and blankets. About 80 per cent. of the cultivated area was held by the recorded Survey occupants, and 20 per cent. of this sublet by them to tenants; but notwithstanding this a good many were still poor and in debt. The general condition both of the country and people, however, had greatly improved since the first settlement. Land was saleable and a good security for loans, and the revenue was realised without difficulty and with practically no necessity for remissions.

It was found necessary to re-measure a great portion of the land, to correct faulty old measurements, to bring under assessment lands taken out of waste Survey fields, which had been rendered possible by boundary marks having been put up some years after the survey was made, and to subdivide in accordance with existing occupancies fields which at first had been made of too large a size. The classification, which was found to be faulty, especially in the better soils, was all re-done.

For maximum dry-crop rates these villages were divided into a northern group of sixty-nine villages, at a highest rate of R. 1 2a.,

and a southern group of thirty-one, at R. 1 1a., while two villages apart from the rest, and surrounded by Nizám's territory, were grouped by themselves, at a maximum of R. 1. On 464 acres of Government rice land a maximum of Rs. 4 gave an average rate of R. 1 4a. 11p. For garden land under wells in existence at the first settlement only the highest dry-crop rate was to be charged, while for that under wells constructed subsequently no increase over dry-crop rates was to be made. What was under *budkis*, or water-lifts from streams, was to pay R. 1 12a. as a maximum. For land watered from channels a highest rate of Rs. 5 gave an average of Rs. $3\frac{1}{4}$. On the whole the new rates raised the rental from Rs. 1,09,650 to Rs. 1,63,200, an increase of 48·8 per cent., as shown in the statement below:—

Class.	No. of Villages.	Cultivation.				
		Old Survey.		New Survey.		Increase%
		Area. Acres.	Rental. Rs.	Area. Acres.	Rental. Rs.	
1	69	211,226	79,029	223,115	1,20,414	52·3
2	31	78,286	30,262	87,137	42,365	40·0
3	2	1,034	365	1,072	428	17·3
Total	102	290,546	1,09,656	311,324	1,63,207	48·8

In 1875-76 a tract of 182 villages, first settled in 1845, came under revision. Sixty-nine of these belonged to Indí, seventy-seven to Sindgi, twenty to Bījápur, and sixteen to Bágavádi, and formed four somewhat disconnected groups. Prices of *javári* and *bájri* had risen from 150 lbs. in the ten years ending in 1858 to 54 lbs. in those ending in 1873. The communications of the country had been greatly improved. The G. I. P. Railway was within twenty miles of the northern villages, and not more than fifty from the most distant. Most of the traffic, however, still centred in Sholápur, whence *javári* and *bájri* were exported to Bombay and Gujarát, and wheat, gram, &c. to Madras and Bangalore.

The decennial returns of area and rental were as follows :—

Years.	Land Revenue.		Remis- sions.	Collec- tions.	Waste.	
	Area. Acres.	Rental. Rs.	Rs.	Rs.	Area. Acres.	Rental. Rs.
1844-1854	312,145	1,44,765	6,279	1,45,455	208,486	70,002
1854-1864	428,976	1,88,841	390	1,92,618	112,028	36,893
1864-1874	530,955	2,24,725	45	2,25,381	15,808	3,438

This shows an increase of nearly 22,000 acres and Rs. 80,000 in the thirty years.

Population had in the same time increased by nearly 50 per cent., houses nearly 55, field cattle 45, cows and buffaloes 29, ploughs 220, carts 1,360 (from 45 to 657), horses and ponies 39, and wells 72 per cent. Among agricultural stock sheep and goats alone had diminished by about a half. The cotton and blanket manufacturing industries had also increased, and Chadchan in Indí was famous for its dyed cloths. The southern villages near the Dôn had improved the most; the thrifty and hard-working nature of the people had not left a single acre waste, and the fields were clean and well tilled.

The whole tract had to be re-measured and re-classified for similar reasons to those given above under Indí, &c., in the latter specially to re-adjust the values of the inferior soils. The re-measurement resulted in an increase of the arable area recorded from 312,145 to 530,955 acres, and a decrease in the unarable from 208,486 to 15,808 acres. In this tract, as well as the above, each Survey field and its boundary marks were now shown on the village map, so that encroachments could be detected at once.

For the revision, only two groups of villages were formed, one of 152, at a maximum of R. 1 2a., which were nearest the rail and the general lines of traffic; and the other of the remaining thirty, at R. 1 1a., near the Nizám's frontier. Rice was scattered about in a good many villages to the extent of about 1,500 acres; on this a maximum rate of Rs. 4 gave an average of 15a. 2p. Old garden land assessment was reduced to the highest dry-crop rates, and nothing extra imposed on land under wells made within the period of thirty years. Channel-watered land (*pátasthal*), with a

maximum of Rs. 5, was assessed in the average at about Rs. 2½. The entire rental was increased from Rs. 2,36,920 to Rs. 2,95,390, or 24·6 per cent., as shown in the following table :—

Class.	No. of Villages.	Old Survey.		Revision Settlement.						Increase per cent.
				Cultivated.		Waste.		Total.		
		Area. Acres.	Rental. Rs.	Area. Acres.	Rental. Rs.	Area. Acres.	Rental. Rs.	Area. Acres.	Rental. Rs.	
1	152	498,775	2,10,925	548,315	2,65,453	15,021	2,063	563,336	2,67,518	25·8
2	30	60,345	26,000	62,888	29,935	3,061	857	55,949	30,792	15·1
	182	559,120	2,36,925	611,203	2,95,390	18,082	2,920	629,285	2,98,310	24·6

In 1876-77 the eighty-one villages of Mudebihál and sixty-eight of Bágevádi that had been first settled in 1844-45, together with the fourteen of Chimalgi settled in 1859, came under revision. The rainfall in this tract of country was more certain in the eastern villages and those along the Krishna in the south than in those of the western and northerly portions. The whole of it was fairly well off for markets and communications. Bágalkot, about thirty miles to the south, was the nearest local market, but that of Sholápur and the stations along the G. I. P. line were accessible, as the country was open. In the two periods of fifteen years for which the first settlement had been in force, the area under cultivation and the revenue had largely advanced, the former from 181,503 to 291,165 acres, and the latter from Rs. 98,664 to Rs. 150,756, as shown in the following table :—

Years.	Land Revenue.				Waste.	
	Area. Acres.	Rental. Rs.	Remissions. Rs.	Collections. Rs.	Area. Acres.	Rental. Rs.
1844-1859	181,503	97,142	2,248	98,664	1,20,105	54,144
1859-1875	291,165	1,49,863	2	1,50,756	23,016	7,985

The area still lying waste at the end of the thirty years, it is evident from its average assessment, 5s. 6p., was of an inferior description. In this period the population increased 58 per cent., the houses 82·6, working cattle 48·8, cows and buffaloes 43, horses

and ponies 81·9, ploughs 89, carts 560 (from 65 to 429), and wells 76·8 per cent. Sheep and goats had not decreased much, as they had elsewhere, a good deal of waste land being still left for pasturage. A good deal of weaving of cloth and woollen blankets went on, and there was consequently a not inconsiderable non-agricultural population to be fed. With the exception of the Chimalgi villages, the whole of the tract was re-measured and the soils re-classified. The latter were measured again, but not entirely re-classed. It was generally found that the better soils were under- and the worst soils over-valued.

The villages were thrown into three groups for maximum dry-crop rates. The 122 central villages close to the general line of trade had a highest rate of R. 1 2a.; the thirteen villages in the east, at a distance from it, were put at R. 1 1a.; and the third group was one of fourteen villages, the rainfall in which was uncertain and scanty, with a maximum of R. 1. There were about 100 acres of rice land, a maximum of R. 4 in which gave an average rate of R. 1 6a. 7p. Garden land was treated as in the districts already described. Channel-watered land, with a maximum of Rs. 5, was assessed at an average of Rs. 3 2a. 11p.

The general result was a rise in the rental from Rs. 162,181 to Rs. 200,939, or 23·9 per cent.

Class.	No. of Villages.	Old Survey.		New Survey.						Increase per cent.
				Cultivation.		Waste.		Total.		
				Area. Acres.	Rental. Rs.	Area. Acres.	Rs.	Area. Acres.	Rs.	
1	122	290,450	1,48,090	304,175	1,83,097	8,995	1,666	313,170	1,84,763	23·6
2	13	16,586	7,961	17,776	9,513	70	29	17,846	9,542	19·4
3	14	18,513	6,130	18,735	8,329	1,047	157	19,832	8,486	35·0
Total	149	325,549	1,62,181	340,736	2,00,939	10,112	1,852	350,848	2,02,791	23·9

In 1877 the thirty-nine villages of Mudebihal, settled in 1845, were revised. They lay to the north-east of the tract of country the revision in which has just been described. With the exception of those in the valley of the Dôn, the soil of these villages was not remarkable for fertility, but the rainfall was favourable. The chief market was that of Talikoti, which was held weekly. Cotton and linseed went chiefly to Bombay *via* Sholapur, and other products in different directions. There were no local manufactures

of importance, but a good many hand-mills, made out of the sand-stone at Mudabihál, were sent to Sholápur and elsewhere.

The effect of the first settlement in three decennial periods had been as shown below :—

Year.	Land Revenue.		Remis- sions.	Collec- tions.	Waste.	
	Area. Acres.	Rental. Rs.	Rs.	Rs.	Area. Acres.	Rental. Rs.
1844-1854	42,260	22,301	618	22,844	29,303	13,572
1854-1864	58,243	29,968	187	30,429	16,241	7,672
1864-1874	36,982	36,982	9	37,076	2,124	644

In the thirty-two years subsequent to the first settlement, population had risen 56·6 per cent., houses 58, working cattle 56, cows and buffaloes 84·8, horses and ponies 71·7, ploughs 524 (from 237 to 1,479), carts 8,300 (from 1 to 84), and wells 73 per cent. There was little local manufacture. The whole tract was re-measured and re-classified, the former operation resulting in adding nearly 3,500 acres to the arable area. The villages were placed in two groups according to their distance from the main lines of trade, one consisting of twenty-three villages with a maximum dry-crop rate of R. 1 2a.; and the other of sixteen, on the Nizám's frontier, with one of R. 1 1a., raising the average from 7½a. to 9a. 4p. The rice and channel-watered land, of which there was only a small quantity, had maximum rates respectively of Rs. 4 and Rs. 5, and the land under wells was treated in the same way as in other parts of the country.

The new rates raised the rental as a whole from Rs. 37,079 to Rs. 44,924, or 21 per cent., as below :—

Class.	No. of Vil- lages.	Former Survey		Revision Survey.						In- crease per cent.
				Cultivation.		Waste.		Total.		
		Area. Acres.	Rental. Rs.	Area. Acres.	Rental. Rs.	Area. Acres.	Rental. Rs.	Area. Acres.	Rental. Rs.	
1	23	44,962	23,328	47,076	29,195	825	229	47,901	29,424	35·2
2	16	28,051	13,751	29,646	15,729	1,239	247	30,885	15,976	14·4
	29	73,013	37,079	76,722	44,924	2,064	476	78,786	45,400	21·1

Proposals for the revision of the first Survey settlement for the subdivision of Hungund were submitted in January 1883, and sanctioned in August of the same year. Of the 145 villages in it, only two were entirely re-measured, the rest being tested and partially re-surveyed with the object of breaking up old fields of inconvenient size and of separating alienated from Government land as far as possible, in addition to recording each ryot's holding independently. The number of Survey fields was thus increased from 13,923 to 16,729.

Classification of soils was also done over again sufficiently to widen the range of valuation between the superior and inferior descriptions, which were found to have been too closely approximated in the first instance. 44,374 acres were re-classed in the field, and the value of 230,067 acres adjusted.

The Hungund subdivision occupies the south-east corner of the Collectorate, and is bounded on the west by Bágalkot and Bádámi, on the north by Mudebihál, from which it is separated by the Krishna, and on the south and east by the Nizám's territory. The sandstone hills of Bádámi extend in a broken form along the whole of the southern boundary of Hungund, and the soil so far as they extend is red and sandy, and the surface of the country much broken and covered with scrub jungle. The remainder of the subdivision is an open plain, chiefly of black soil, and devoid of trees. With the Krishna and Malprabha, the former of which floods its banks extensively in the rainy season, Hungund may be considered on the whole a well-watered and fertile district. The climate, especially in the west, is very favourable to dry-crop cultivation, and failure of crops for want of rain is rare. The annual average rainfall is nearly twenty-five inches. Its cultivation compares favourably with that of Bágalkot.

The face of the country is mostly smooth, and favourable to internal communication. Roads from Bágalkot and Sholápur, not bridged at the time of settlement, met at Hungund, and were carried on to Ilkal, one of the most important markets in the district, where a considerable weaving and dyeing industry is carried on. There are also several other local markets.

A census, taken by the Revenue Department, showed different results with regard to population from that shown by the Survey

returns, the latter being the less favourable of the two. By it there had been a decrease of 3·4 per cent., whereas the other census showed an increase of 8·6 per cent. There was also a considerable difference in the number of agricultural cattle: in the former a decrease of 18·4 per cent., and in the latter an increase of 16·3. It is clear, however, by the increase in superior houses, 4,031, or 30·7 per cent., and decrease in thatched ones, 336, or 83·6 per cent., that up to the famine of 1876-77, when a large emigration of the industrial population of the towns took place, the country must have increased in material prosperity, for both censuses show a very large additional number of carts (in one nearly 717 per cent., and in the other 966), and wells and water-lifts from streams had also risen from 543 to 913.

The effects of the famine are clear in the following returns for the three principal towns, showing their population at three several times:—

	1851.	1872.	1881.
Ilkal . . .	7,041	10,107	8,310
Amingad . .	5,146	7,314	5,871
Hungund . .	4,363	6,296	5,160

The average population per square mile, 140·5, was certainly high for a Deccan plain district. It was found that two-thirds of the total number of fields were cultivated by their occupants. The proportion was unusually great, and accounted for the good style of cultivation observed.

That land had come to bear a high saleable value was proved by the fact that in thirteen instances of forced sales by order of Court, the average price realised was twenty-one years' assessment.

The average prices of the four staple grains had been as follows, in *seers* of 80 *tolas* per rupee:—

	Javári.	Bájrí.	Wheat.	Gram.
1851 to 1861	44	40	31	23
1862 to 1871	27	24	12	10
1872 to 1881	22	22	13	10

There had, however, been a considerable fall in 1882.

Cotton, which is the most extensively grown crop after *javári*, and the price of which is regulated by what is obtainable in

Bombay, had risen over 100 per cent. in value. The general course of revenue and cultivation after the first settlement had been that the realisations rose rapidly from Rs. 56,987 to Rs. 92,844 in 1875-76, but by 1880-81 it was reduced by Rs. 6,089, and the area had fallen by 13,288 acres. From 1881-82 it had begun to rise again. In 1878-79, out of the 50,844 acres available in 1851 in 142 villages, only 1,534 acres were still left waste. Revenue was collected with ease, as proved by the fact that in the years 1878-79 to 1881-82, out of 959 cases where notices of sale of occupancy rights for arrears of revenue had issued, distraint took place only in twenty-three. There could be no doubt that the subdivision had made and was making great progress in prosperity till the temporary check of the famine, the effects of which have now passed away.

The original grouping for maximum dry-crop rates was into two classes of 23 and 119 villages, solely on account of climate, the rates being R. 1 and 1a. respectively. In consequence of the approach of the railway, the following new grouping was adopted:—First group, at R. 1 4a. maximum, twenty-four villages, with the best climate in the south-west, and with fair facilities for railway communication. These were almost the same as the original first group. In the new second group, at a maximum of R. 1 1a., were placed fifty-one villages in the north-west, somewhat inferior in climate, but equal with regard to railway facilities to the first group. They formed a part of the original second group. In the third, at a maximum of R. 1, were placed the remaining seventy villages, taking in the whole eastern portion of the subdivision, with an equally good climate, but rather inferior railway facilities.

The original 580 acres of rice land, with an average assessment of R. 1 10a. 11p., per acre, had fallen to 431 acres, and would bear an average rate of Rs. 4. Garden land was raised on an average from R. 1 9a. 5p. to Rs. 2 2a. 1p. Channel-watered land had increased from 17 to 127 acres, and would have an average rate of Rs. 5 12a. 9p. The orders with respect to the non-taxation of improvements had been carried out.

The following statement shows the general result of the revision:—

Class.	Villages.	By Old Survey.		By Revision Survey.						Increase per cent.
		Occupied Land.		Occupied Land.		Waste.		Total.		
		Area. Acres.	Rs.	Area. Acres.	Rs.	Area. Acres.	Rs.	Area. Acres.	Rs.	
1	24	19,973	11,336	20,651	14,939	1,428	618	22,082	15,557	31.8
2	51	56,805	33,492	57,281	33,764	1,370	468	58,551	44,252	30.7
3	79	77,771	43,802	78,765	53,644	11,400	5,730	90,225	59,374	23.5
	145	154,549	88,620	156,700	1,12,347	14,158	6,836	170,858	1,19,183	26.8

. The old average rate was 9a. 2p., and the new 11a. 6p., an increase of 2a. 4p. per acre. The waste land still unoccupied had an average of 7a. 8p., and having been mostly cultivated in former days, would probably soon be all absorbed. In order to allow for losses by the famine, a remission of $1\frac{1}{4}$ a. per rupee of the new assessment was allowed by Government for three years.

In 1883 proposals for the revision of the first Survey settlement in the old subdivision of Bágalkot were submitted, and sanctioned by Government in January 1884. 124 of the villages had been settled in 1850-51, and two subsequently; thus 126 were included in the revision. Twenty-eight of these were entirely re-measured, and ninety-eight partially so, with a view to separate all existing occupancies and breaking up all numbers of inconvenient size, as well as to separate Government from alienated land as far as possible. In consequence of these operations, 15,946 old were converted into 18,850 new Survey numbers. The testing of the old classification of soils proved, as elsewhere, that the difference in valuation between the superior and inferior descriptions was not sufficiently wide. The error was corrected either by raising that of the former or lowering that of the latter, as the test showed to be required.

In consequence of the re-classification, 2,319 acres were added to the arable area, and 1,862 acres fewer recorded as unarable than at the first settlement. Rice and garden lands had also increased slightly; but the difference in the whole area only amounted to .2 per cent.

Bágalkot is bounded on the north by the Bágévádi and Mudebihál subdivisions, on the south and east by Bádámi and Hungund, and on the west by the Native State of Mudhol. The valley of

the Ghatprabha, which flows from the south-west as far as Bágalkot and then turns north till it flows into the Krishna, contains much good black soil in its bottoms; but the central and by far the larger portion of the subdivision is poor and stony. The large extent of black soil in the Krishna valley requires heavy rain to bring forth its productive powers, as it is stiff and clayey. The most reliable rainfall is in the valley of the Ghatprabha and in the neighbourhood of the hills which contain it, averaging 25·73 in eight years of which returns are forthcoming.

The agriculture of Bágalkot was unfavourably spoken of by Major Wingate, and, although not inferior to that of Bádámi, the neighbouring subdivision on the south, did not come up to that of Hungund on the east. Bágalkot was not very well provided with roads at the time of settlement, the only one having bridges and culverts throughout being that from Kaládgi to Bágalkot in the south. There were other roads, not passable in heavy weather; but since the settlement the advantage of railway communication has been extended to the subdivision, and Bágalkot itself has a railway station. Bágalkot and Kaládgi, the head-quarters of the Collectorate before it was changed to Bījápur, were the chief market towns, the former being the largest depôt between Húbli and Sholápur, with both of which its dealings were considerable. There was a little local cotton manufacture, but this was apparently on the decline. Raw cotton was exported to Vengurla (Vingorla), Kumta (Compta), and Sholápur.

In the course of the Survey lease, in 124 villages the increase of population, which was only 9 per cent., had evidently been checked by the famine, as the increase in houses had been 37·5 and 53·1 per cent. of the better and inferior sorts respectively. Milch cattle had decreased 41 and sheep and goats 16 per cent., whilst carts had risen from 140 to 1,072 in number. Agricultural cattle had fallen 2·9 per cent., although there still remained on an average a pair of bullocks to 27·8 acres. Wells and lifts showed an increase of 28 per cent., but the total number was still inconsiderable.

The value of land, as evidenced by the Registration records, was decidedly high. This appears also to be borne out by the large proportion, 30 per cent., of land sublet by the occupants to

others, that tilled by the occupants themselves, 58 per cent., being comparatively low.

Prices of *javári* and wheat, the staple grains, had ranged as follows, showing a very large advance :—

	Javári. Seers per Rupee.	Wheat. Seers per Rupee.
Ten years' average from—		
1851-52 to 1860-61	44	32
1861-62 to 1870-71		12
Eleven years' average from—		
1871-72 to 1881-82	214	11

In the 124 villages the revenue, commencing at Rs. 42,892 (average 9a. 8p. per acre), progressed rapidly till 1863-64, when it amounted to Rs. 79,585. All the better lands, averaging 8a. 6p. per acre, had by this time evidently been taken up. Up to 1876, 7,504 more acres, of the average assessment of 5a. 7p., had been taken up, and the maximum revenue of Rs. 82,133 had been reached. There were then only 5,295 acres, of the average assessment of 3a., left unoccupied. The result of the famine of 1876-77 was to throw matters back to the state they were in in 1863-64, thus showing that it was only the inferior lands, chiefly used for grazing and fodder crops, that had been thrown up.

Years.	Occupied.		Unoccupied.	
	Area.	Assessment.	Area.	Assessment.
	Acres.	Rs.	Acres.	Rs.
1863-64,	139,733	79,585	12,799	3,735
1881-82	139,032	79,251	13,146	4,122

This speaks well for the equitable relative valuation of soils under the Survey system. Remissions and outstanding balances had become nominal, and although, subsequently to the famine, they to some extent reappeared in Bágalkot, as elsewhere, they have since almost disappeared again.

In 1879-80 and 1880-81 the number of notices for the sale of

occupancy rights was 1,843, of which 380 were carried out, many ryots having evidently not recovered from their losses by the famine. These having been weeded out, in 1881-82 only 183 notices had to be issued, in only nine of which actual sale had to be resorted to for the recovery of the revenue.

The general principles of Major Wingate's grouping for maximum rates of dry-crop assessment were followed with modifications on account of existing and prospective improvements in the means of communication. Bágalkot, which was shortly to become a railway station, was placed by itself in a first class, at a maximum of R. 1 10a.; and four villages near it, sharing its advantages in a somewhat smaller degree, were formed into a second group, at R. 1 6a. Forty-nine villages lying also along the Ghatprabha valley, and enjoying the best climate in the subdivision, with easy access to the railway at Bágalkot, and the use of the made road from Kaládgi to that town, were formed into the third group. These nearly coincided with Major Wingate's group assessed at R. 1 2a., and the increase proposed was to R. 1 4a. A few villages, formerly rated at a rupee, the position of which had been much improved in respect to communications, were included. The fourth group, also of forty-nine villages, lay partly along the border of the third, and shared to some extent its advantages of climate. The rest, on the north-east, were compensated for a somewhat inferior climate by greater facilities of railway communication. The maximum proposed was R. 1 2a. The fifth group comprised the remaining twenty-three villages, mostly on the Krishna in the north and north-west, which had an uncertain climate and gained less than any others by the approach of the railway. The maximum was raised to R. 1 from the original 14a.

Rice lands had only increased fourteen acres during the Survey lease, and were to bear an average assessment of Rs. 2 11a. per acre. The original 100 acres of Government garden land had increased to 241, on which the assessment proposed gave an average rate of R. 1 7a. 10p. per acre. The usual modifications in lands under old wells were carried into effect, and no improvements had any extra assessment imposed on them. Percolation rates on land benefited by new Government irrigation works were regulated so as to bring the assessment to double the dry-crop rates.

It will be seen from the subjoined statement that the general result of the proposed settlement was to raise the revenue on the Government land in occupation by Rs. 22,282, or 27·9 per cent. :—

Class.	Villages.	By Old Survey.		By Revision Survey.						Per cent. Increase
		Occupied Land.		Occupied Land.		Wasto.		Total.		
		Area. Acres.	Rs.	Area. Acres.	Rs.	Area. Acres.	Rs.	Area. Acres.	Rs.	
1	1	2,025	1,813	2,141	2,381	42	13	2,183	2,394	31·3
2	4	2,509	1,317	2,551	1,759	11	15	2,562	1,774	28·4
3	40	49,164	30,634	50,187	37,765	6,025	2,098	56,212	39,863	23·3
4	49	65,056	33,834	65,771	45,092	7,823	2,620	73,594	47,702	33·2
5	23	21,886	12,168	22,388	15,114	666	267	23,054	15,381	24·2
	126	140,640	79,766	143,038	1,02,101	14,567	5,013	157,605	1,07,114	27·9

At the settlement there were left 14,567 acres of waste, assessed at Rs. 5,013, or an average of only 5a. 6p. an acre, evidently fit for little but grazing. The average assessment on Government occupied land by the first settlement was 9a. 11p. This was raised at the revision to 11a. 5p., or by 2a. 4p. the acre.

The Survey lease in the Bādāmi subdivision having expired, revised rates should have been introduced in 1882-83, but were postponed in consequence of its not having recovered from the effects of the famine of 1876-77. A Report on the subject was submitted in January 1884, and the proposed new rates sanctioned in June of the same year. They applied to 147 villages settled in 1850-51, and two settled subsequently. Ninety-one villages were partially and fifty-eight wholly re-measured. As in other places, all Survey fields of excessive size were broken up, each ryot's holding was measured so as to be held independently of all others, and alienated land, as far as practicable, separated from Government land. The classification of soils was also readjusted, as in Bāgalkot and elsewhere.

Bādāmi forms the south-west corner of the Bījāpur Collectorate. It is bounded on the north and east by Bāgalkot and Hungund, and on the south across the Malprabha river by the Dhārwar Collectorate. On its south and south-west it has the *jāgēr* villages of Mudhol and Bāmdurg. In the south-east corner an arm of fifteen or sixteen miles in length stretches out into Dhārwar, and

consists of black soil similar to that of the latter Collectorate. The twenty villages in this are now included in the Ron subdivision. The rest is hilly and rugged. The rocky waste which forms a fourth of its area is overgrown with grass and scrub jungle, and the culturable land is mostly of light-coloured sandy soil, which will not long retain moisture, but is by no means unfertile. The average rainfall for twelve years had been 24·72 inches, and is usually seasonable and well distributed. There was but little irrigation in this tract of country, nor, from the nature of the latter, is this likely to increase.

The light soils of the Bádámi subdivision proper, outside the arm referred to, are carefully tilled and manured, and yield good crops. The road connecting Húbli and Sholápur, a line bearing considerable traffic, passes through Bádámi, and there are other fair roads, but, owing to the hilly nature of all the northern portion of the subdivision, road-making is expensive, and internal communication very difficult for wheeled traffic. Carts are little used for agricultural purposes. In the villages south of the Malprabha the country is open and flat, and, except in the rainy season, everywhere practicable for carts. Guledgad is the only market of importance, and this chiefly on account of the local manufacture of women's bodices. Bádámi exports little raw produce, it being mostly consumed by its own agricultural and non-agricultural population. The Eastern Deccan Railway, however, about to be opened at the time of the revision, ran through the heart of the subdivision, and would have several stations within or close to its limits. Its benefit would be felt more especially at once by the southern villages, which grow more exportable produce than those in the northern part.

The decline of the weaving industry prophesied by Major Wingate did not yet seem to have come about, notwithstanding the check put on it by the famine. In Guledgad there were 2,386 looms at work as against 1,800 in 1851, and the Superintendent of Survey was of opinion that owing to proximity to the cotton-field and the comparative cheapness of food grains, Bádámi would probably continue to be the seat of considerable manufacturing industry. The statistical returns of the twenty villages of the Ron subdivision, and of the 129 still remaining in Bádámi,

show very different results. Whereas in the former population had increased in the period of the Survey lease by 40 per cent., houses by 44·5, carts by 545·6 (from 170 to 1,104), wells and lifts by 98·2, and tanks by 12·5, in the latter the decrease in population had been 6·7, the increase in houses 8·5, in carts 354·1 (from 229 to 1,040), and in wells and tanks respectively 28·1 and 2·5. The agricultural cattle in the former had increased 33·4, and in the latter decreased 8·7; while in milch cattle and their young the decrease in the former had been 31·3 and in the latter 55·9. In the former all traces of the famine had disappeared by the revision, and there was a population of 177 to the square mile; in the latter the pressure was 137 to the same area, but if the 138 square miles of unarable land in Bádáni proper are deducted, the number rises to 195 per square mile. In the case of the Ron villages, if the population of Guledgad is deducted, there remain 162 to the square mile, in either case a high density for a country practically devoid of irrigation.

That land had acquired a high value was proved by the fact that out of 237 cases of sale in only forty-two did the purchase-money amount to less than ten times the assessment, two of these being forced sales under decrees of Court, and in no less than sixty-one cases the sales were for twenty and upwards of twenty times the assessment. The records of leases and mortgages bore evidence to the same fact, the former containing many instances in which the lessee paid twice the Government assessment of the land and upwards.

Prices of *javári* and wheat, the two staple grains, ranged as follows in three successive periods of eleven years at Guledgad, the most important market:—

	Javári.	Wheat.
	Sacrs per Rupee.	Sacrs per Rupee.
1850 to 1860 . . .	46	28
1861 to 1871 . . .	26	12
1872 to 1882 . . .	22	12

It will be seen that the rise in the second period over the first was very great, and that in the second and third prices remained almost stationary; the average in the third period had been

reduced by the low prices ruling in the three years preceding the settlement having been low, partly in consequence of good seasons and partly in consequence of the stocks exhausted at the famine having been replenished; but there could be little doubt that the opening of the railway would tend to keep them up at least to that level.

During the Survey lease the revenue in the northern portion, or Bádámi proper, increased regularly and rapidly up to 1864-65, when the American war prices were at their highest, rising from Rs. 28,106 to Rs. 59,062, the waste area of Government land falling from 48,585 to 9,537 acres. With falling prices after this the waste area increased till in 1878-79, before the effects of the famine were fully seen, it fell to 14,228 acres, and the revenue to 57,181. By 1882-83 the waste, in consequence of the effects of the famine, increased to 41,824 acres. The downward movement had then apparently ceased, and it was anticipated, that the relief that would be afforded to the poorer soils by the revised settlement would lead to their being taken up again. It is not unlikely, too, that a somewhat unusual pressure was exercised from headquarters for the punctual collection of the revenue to help the Exchequer after the severe loss entailed by the famine.

In the anticipations to be formed of the effects of the revision in a tract of country such as that of northern Bádámi, where wheel traffic must always be so much circumscribed, it must be remembered that its disadvantages in respect to internal communications must narrow the margin of profitable cultivation in it as compared with its more open neighbours, which will profit comparatively in a greater degree from the advent of the railway; this point had to be considered in fixing the revised rates.

Looking next to the revenue history of the twenty Ron villages, we find that in the first eleven years the whole of the waste was absorbed and the revenue brought up to Rs. 39,276, or more than double of what the revision brought it to. Except that in 1876 Rs. 900 were outstanding, and in the four years preceding the second revision trifling areas remained unoccupied, there has been no re-action, and from first to last no remissions except small amounts in the three years ending with 1855-56. In the three

years previous to the revision there were only five, six, and two cases of sale of occupancy rights for the realisation of arrears of revenue, which must thus have been collected with ease.

On the whole the Superintendent came to the conclusion that though Bádámi proper had a certain advantage in rainfall over its neighbours, this was fully counterbalanced in the latter by the profit derived from improved communications. The latter circumstance it was therefore found more necessary to take into consideration in the revision than the climate, which was the main point looked at in the first settlement. Only two groups, at maximum rates of R. 1 4a. and R. 1 2a., were proposed for the classification of the villages for dry-crop assessment. The former comprised 121 villages, viz. the twenty Ron villages and 101 belonging to Bádámi proper. The former have not such a good climate as the latter, but are flat and open, with easy access to two railway stations; the latter have a very favourable climate for early crops, and are traversed by the railway, with three stations, but have inferior internal communications. The old maximum was mostly R. 1 2a.

The second group consisted of twenty-eight villages in the west of Bádámi proper, with a climate inferior to that of the rest, and being farther from the railway, had fewer advantages of communication. Most of these villages were formerly rated at a maximum of R. 1. The area of rice recorded by the old Survey in Government land was 371 acres, assessed at an average rate of R. 2 7p. per acre. This had only increased by five acres, whilst the total area, inclusive of alienated land, had fallen off. The new average rate, nominal on the alienated portion, came to R. 3 5a. 6p. The area of garden land had also somewhat fallen off, and the new average proposed came to R. 2 12a. 9p., as compared with the former one of R. 2 14a. 7p. Improvements were of course left unassessed, and the usual modifications of assessment were carried out in the case of lands watered from old wells and those benefited by percolation from Government irrigation works. Channel-watered lands, of an area of 211 acres, would bear an average rate of Rs. 5 8a. an acre.

The general result of the revision will be seen from the following statement:—

Class.	Villages.	By Former Survey.		By Revision Survey.						Increase per cent.
		Occupied Land.		Occupied Land.		Waste.		Total.		
		Acres.	Rs.	Acres.	Rs.	Acres.	Rs.	Acres.	Rs.	
1	121	132,508	80,346	132,475	1,01,041	24,700	10,263	157,175	1,11,304	25.8
2	28	22,427	11,369	23,238	13,050	11,419	4,101	34,707	17,160	14.9
	140	154,935	91,715	155,763	1,14,100	36,119	14,364	191,882	1,28,464	24.5

The increase in the first group fell mainly on the Ron villages; this was due to the old maximum rate having been R. 1, while in Bádámi proper it was R. 1 2a., as well as to the new classification having raised in them the value of the soil, which was particularly rich. The statement shows that the Government unoccupied waste is 36,119 acres, assessed at an average of 6a. 4p. the acre. Much of this land had been but recently thrown up, and would probably soon be re-occupied. The average assessment on occupied land had been 9a. 6p. by the first settlement, and was now raised by 2a. 3p. to 11a. 9p., which, considering all the circumstances, was certainly moderate.

In sanctioning these proposals for the usual period of thirty years, Government directed that they should be brought into full effect in the Ron villages at once, but that in Bádámi proper the remission of 1½a. in the rupee for 1835-86 and 1886-87 granted in Húngúnd and Bágalkot should also be given. In confirming this decision the Secretary of State was of opinion that the proposed remission might be continued after the latter year also if it should be found that the evil effects of the famine were felt longer than was anticipated at the time the new rates were sanctioned. The remission was finally discontinued by Government orders in 1887, and the full rates ordered to be levied from 1887-88.

Revision has since been carried out in eight remaining villages of Bádámi at an increase in revenue of Rs. 672 on Government land, or 12.6 per cent., and of Rs. 436 in quit-rents on alienated land, the new average rate on the former being 12a. 6p. as against 11a. 2p. of the first settlement.

In 1890 the Survey settlements originally introduced in from 1855-56 to 1857-58 into ninety-seven villages in the Tálukas of

Bíjápur, Bágevádi, and Mudebihál, were brought under revision to complete the operation in that Collectorate. In consequence of separate holdings being now measured into numbers, and recorded by themselves in place of being amalgamated with those of other holders, of changes through the action of floods and other causes, among which errors in the previous measurement were answerable for only seventeen, about one-third of the Survey fields and half the area were re-measured. In classification of soils the old work was found to be so far satisfactory as to admit of being confirmed with some modifications to render it conformable with the standards more recently adopted. The total difference in area came to only 215 out of 489,228 acres, dry-crop and garden showing an increase of 1,395 acres, and rice and unassessed lands a decrease of 1,610 acres.

These villages lie for the most part in a group along the western boundary of the Collectorate, twelve being scattered. Contrary to the experience of the returns examined at the first settlement, the rainfall appears to be fairly certain, and to be derived mostly late in the season from the north-east, and not from the south-west monsoon. A large proportion of the area, or 15·6 per cent., is taken up with grass and fallow, and in consequence of the usual lateness of the rainfall, about two-thirds of the area produces late, and rather over one-third early, crops. Among the former cotton only figures for about 5 per cent.

Since the first settlement this tract of country has benefited greatly by being no longer left in isolation for want of proper means of communication. Bíjápur itself, famed for its magnificent Mussulman remains, has been somewhat restored to its ancient splendour by the repair of its old buildings. Roads traverse the country in several directions, and the railway has four stations within its limits. The weekly bazaar at Bíjápur has assumed considerable proportions, there being also three other minor markets, and the commerce of the country is again in touch with the coast and the markets of the west of the Presidency. This is demonstrated in a very marked degree by the fact of there being now 1,687 carts, whereas at the period of the old settlement there were only eighteen.

Population in the same period has increased 51·4 per cent., and

houses 33·9. Agricultural cattle are more in number by 40·6 per cent.; milch and young cattle and sheep and goats respectively by 21·4 and 39·8 per cent. Ponies and horses number 55·7 per cent. more. Wells and water-lifts have also increased by 56·5 per cent.; of these 887 are devoted to irrigation and 360 to drinking purposes, but 334 out of the total number of 1,581 are out of order. These, no doubt, will be repaired under the new rule, by which land under existing wells will henceforward be brought under dry-crop rates.

Prices of agricultural produce have meanwhile risen to about double of what they were, and the registration statistics relating to mortgages and leases prove that land has acquired a high saleable value. In 185 cases where land has been leased the rent realised was nearly three times the Government assessment, Rs. 17,757 being paid in advance. The transactions tabulated under the head of mortgages, with and without possession being handed over to the mortgagee, are so numerous and complicated that it would take too long to epitomise them, but it is clear that in the majority many times the amount of the Government valuation of the lands have been advanced on the security of the latter. An unpleasant feature of the statements is that the interest charged varies from half a rupee to Rs. 3 2a. a month, and that they seem to show that possession of land is in rapid course of transfer from the agricultural to the moneyed classes. Such a transfer would, however, not be an unmixed evil, for it would favour the investment of capital in the improvement of the soil, and tend to weed out from the agricultural, and lower to the labouring, class those among the former who, from indebtedness produced by extravagance and unthriftiness, are really more fitted to be labourers than farmers. It is to be hoped that the operation of the Deccan Agriculturists' Relief Act will be of some avail here to retain in their original status those who have fallen to their present position through misfortune only.

These statistics show an increase in material prosperity which is very remarkable when it is considered that this part of the country felt very severely the effects of the famine of 1876-77. According to returns furnished by the Collector, it resulted in diminishing the population by about one-fourth, from 80,157 to 60,385; agri-

cultural cattle by nearly a half, and other cattle by two-thirds. The recuperative power of the people must be great to have brought their numbers in fourteen years up to 84,338, and their cattle to those given above.

The remissions of revenue granted during the Survey lease were inconsiderable, except in the famine time, and during the three years*preceding the revision there have been only six cases in which recourse was had to the sale of occupancy rights for the levy of the Government dues. The land sold was of very inferior quality assessed at an average of one anna per acre.

In consequence of the advent of the railway, the criterion of superior climate, according to which the old grouping of villages for maximum rates was arranged, and villages towards the west were more highly rated than those in the east, is now not the chief point to be considered in arranging the classes, but distance from railway. Judged by this standard, the latter villages should be placed higher than the former. Correct theory in the matter has, however, had to be placed in abeyance, and where maximum rates of R. 1 4a. and R. 1 would have been fair under existing circumstances, only 14a. and 12a. have had to be taken, because to exceed them would have resulted in raising the total assessment above the 33 per cent. fixed by the rules as the limit beyond which it must not be increased on a revision of the settlement.

The third group, of twenty-nine villages, is that through which the railway runs; and the fourth group is within easy reach of it, but they have been rated at the maxima mentioned above, while the so-called first group, of one village, and the second, of four, have been kept up to R. 1 2a. and R. 1 1a. respectively, because they are surrounded by villages already settled at those rates.

The land under rice cultivation has diminished during the Survey lease from 792 to 612 acres. It is only grown in four villages under two fine tanks, but what there is of it is of superior quality. The maximum rate has been increased from Rs. 6 to Rs. 8, so that the average per acre will be Rs. 5 11a. 10p. in place of Rs. 3 10a. 5p. under the original settlement.

Garden land, which had risen from 1,839 to 2,785 acres, had borne an average assessment of R. 1 14a. 10p.* What was irrigated from old wells having been brought down within maximum

dry-crop rates, the average will now be only 12a. 9p. on such lands. Lands irrigated from water-channels, however, will have an average of Rs. 3 13a. 10p., where the means of irrigation are provided by the State.

The average rate of assessment on all arable lands under the revision will be 6a. 5p. per acre, an increase of 1a. 7p. on that under the first settlement.

The general financial result of the revision will be to increase the revenue from Government lands from Rs. 85,280 to Rs. 112,977, or 32·4 per cent., and on quit-rents levied from alienated lands by Rs. 12,597. There remain still unoccupied 4,332 acres of assessed land, but it is of very inferior quality, rated at an average of 1a. 7p.

Taking the four groups of villages separately, the increases are 41·5, 15·1, 32·2, and 32·6 per cent.; but the first of these, being a single village, comes under the rule by which increase under revision must not exceed 66 per cent., and not under the 33 per cent. rule applicable to whole groups.

There can be no doubt that, under all the circumstances, the new assessment is exceedingly light, and those cultivators who are not too deeply involved will be able to rehabilitate themselves and maintain their position as farmers. The 45,000 acres of un-assessed and unarable land will still leave room for a considerable number of flocks and herds, to dispose of the products of which the railway will afford ample opportunity.

Complete returns are not available to admit of a comparison of the revenue of this Collectorate up to the date of the last revision noted above, but the figures given in Campbell's "Gazetteer" show that in 1838-39, just before the original Survey settlement, the area under tillage was 483,675 acres, assessed at Rs. 639,602 (of which Rs. 144,068 were remitted), and that by 1877-78, the famine year, these had risen respectively to 1,989,208 acres and Rs. 973,132. The losses by the famine immediately reduced the acreage to 1,655,587. By 1882-83, however, the area had again risen to 1,818,097 acres, and there can be no doubt that by the present time the full area of the year previous to the famine has once more been reached and even exceeded.

SATTÁRÁ.

THE Sattará Collectorate lies between $16^{\circ} 50'$ and $18^{\circ} 10'$ N. lat., and $73^{\circ} 45'$ and $75^{\circ} 0'$ E. long., and has an area of 4,792 square miles, with a population averaging 221 to the square mile. It includes with the State of Sattará, which lapsed to the British in 1848, the subdivision of Tásgáon, formerly in Belgám. On its north lie the Collectorate of Púna and the Native States of Bhov and Phaltan; on the east are Sholápur and the territories of the Pant Pratinidhi and Jath; on the west it is bounded by the Sahyádri range, which separates it from Tháná and Kolábá; and on the south partly by Belgám and partly by the Native States of Sángli and Kolhápur. It has eleven subdivisions, as follows, viz.: Vái, Jáoli, Sattará, Koregáon, Pátan, Karád, Válva, Mán, Khátao, Khánápur, and Tásgáon. Its vernacular language is Mahratti.

Before Sattará was established as a State under the Sattará Rájás in 1818, it, like other districts under the Mahrattas, had suffered greatly under Bájiráo's system of farming the revenue. This was at once superseded by the *rayatviri* system. The old, heavy assessment was, however, continued.

Between 1821 and 1829 the whole of the State lands were surveyed by Capt. Adams, but, as no boundary marks were put up, this measurement was of little use except to prevent the holders of alienated land from encroaching on Government land, although the arable area was divided into fields or numbers, and the size of holdings both in Government and alienated land was fixed. Each field had its name and area recorded in the accounts in the *kadím*.

or ancient *bighás*, which was a measure of valuation and not of area, and in the *bigha* of Adams's survey, which was nine-tenths of an acre. The *kamál*, or standard assessment, was entered against each number, but, as this was as a rule too high to be realised, a certain amount was taken off as a permanent remission. This was called the *tota*, or *lárni tota*. Notwithstanding this, the demand for annual remissions for various causes still continued. The hereditary district officers were at first consulted to a certain extent in matters of revenue administration, but were not allowed to take any part in it.

In spite of Capt. Grant Duff's efforts to improve the system it continued in several respects to be loose and uncertain. Village accounts were kept on scraps of loose paper, showing the receipts only, and not the disbursements. It was the practice to send sufficient money to meet the charges every month. Waste lands were often entered as cultivated, and lands let at reduced rates recorded as fully assessed. No care was taken to realise the revenue by instalments at seasons convenient to the payers. Claims for remissions were made by the district officers (*Mámlatdárs*) on an inspection of the crops, and were a matter of bargaining with head-quarters. The final remissions granted were also settled by bargaining with the land-holders. Even then a delay of one or two seasons sometimes occurred in the distribution.

It is quite clear from these details that a wide door was opened for fraud and speculation. Yearly advances alone kept up cultivation, and yearly remissions saved the ryots from ruin. Under such a system no improvement could ever be hoped for.

In 1848, when British management was introduced, the ordinary indispensable revenue reforms were carried out. The pay of village officers was put on a proper footing, regularly balanced accounts were introduced, receipts for payment were given to the ryots, instalments of revenue were collected at the seasons most convenient for them, and lists of remissions allowed were put up in a conspicuous place in each village, so that each man might know what he had to pay. These reforms were carried out by Mr. Frere between 1848 and 1851.

At this time there were eleven subdivisions, viz., *Sattará*, *Tárgaón*, *Karád*, *Válva*, *Jáoli*, *Vái*, *Koregáon*, *Khánápur*, *Khatáo*,

Pandharpur, and Bījápur. Of these the first six, nearest to the Sahyádris in the west, were the most favoured in soil and climate, the richest, best tilled, and most populous. In them the largest portion of the land, after deduction of that held rent-free for service, was held by hereditary occupants (Mirásdars), who kept up cultivation efficiently. The remaining subdivisions are in the east. They were less favoured as to soil or climate, and had been so wasted by war and famine that there were no hereditary occupants left in them. Tillage was consequently inferior, and a large area, especially in Bījápur, was devoted to pasturage for breeding cattle.

Of 2,683,998 acres of arable land, according to Capt. Adams's measurements, there were in 1850-51, inclusive of alienations, 2,444,459 acres in cultivation, yielding a revenue of Rs. 31,60,790 ; but of this rental little more than half came to Government. The arable waste was 239,528 acres, with an estimated rental of Rs. 78,930. The assessment was in all cases on the land, and not on the crop. How it had been fixed could not be ascertained, but it was far heavier than in adjacent British territories, the rate per *bigha* averaging Rs. 20½ on irrigated lands, Rs. 14 on unirrigated ; on rice Rs. 17, and on hill land R. 1 13a. Cesses to the amount of Rs. 2,540 were also paid in various accounts in certain villages, in addition to grazing taxes on cattle and sheep. The former was a rupee per head of buffaloes not engaged in cultivation, and Rs. 6 per hundred head was the average in the latter. These receipts came to about Rs. 30,000.

Of the eleven subdivisions, Bījápur is now included in the Collectorate of that name, and Pandharpur has been transferred to Sholápur. The remaining nine still belong to Sattará. By the introduction of the Survey settlement, which was commenced in 1853 and concluded in 1862-63, there was a fall of about 4 per cent. in the assessment on the cultivated area, viz., from Rs. 11,95,380 to 11,51,890.

TASGAON.

The first subdivision into which the Survey settlement was introduced was that of Tásgáon, on the lapse of the estate to the British Government in consequence of the death of its chief in 1848 without heirs. The eleven villages near Tásgáon and Athni, with eight neighbouring villages, were formed into a Mámлатdár's charge. It had a fairly certain and sufficient rainfall for early (*kharif*) crops. The population averaged 243 to the square mile. Out of 9,000 people some 400 were weavers and dyers. The chief markets were Athni, Tásgáon, Súngli, and Míraj. With but insignificant exceptions, no revenue records were forthcoming of the time before the British occupation. The management was believed to have been on a par with that of other Mahratta chiefs. The *kamál*, or recorded gross rental, was from twice to four times the amount realised. Less was often left to the ryot than was sufficient for food and the next year's cultivation, and advances were made to make up the requisite amount for the latter purposes. What was not paid of the *kamál* rental was added to the ryots' outstanding balances, which were left to be realised in the next favourable season, and held *in terrorem* over the ryot to prevent his throwing up his cultivation. Rather than allow land to remain uncultivated, it was given out at any rate offered for it, and the difference between this and the nominal rental put down as *khand tota*, or loss according to agreement. Notwithstanding this system, under which improvement was, of course, impossible, the people were not badly off in a native point of view. They were not allowed to become wealthy, but they were seldom or never reduced below the level of a fair subsistence.

The effect of an attempt to levy the full nominal rental in 1851 in some of the villages was to throw much of the land out of cultivation; and although people contracted their holdings, throwing up the most heavily assessed lands, and resorted to other expedients, it was a long time before matters found their proper level, after causing much suffering to the people.

In the eight Soni villages, a fall in tillage of about 7,000 out of

15,000 acres took place between 1845-46 and 1851-52, and in the eleven Tásgáon villages one of about 5,000 acres. Remissions seem to have been granted liberally, but on the whole more was levied than in the lifetime of the Tásgáon chief. It resulted that by 1850-51 the lands were deeply mortgaged. Mr. Manson, the Assistant Political Agent, estimated that out of Rs. 40,370 paid on account of the first three instalments of the year, Rs. 19,310 had been raised from money-lenders. He was at last satisfied that the rates of assessment were too high, a fact which, if the country had been under the regular Revenue officers and the Revenue Commissioner, would certainly have been ascertained several years earlier, and prevented much suffering.

The nineteen villages were distributed by the Survey officers for maximum dry-crop rates into four classes. Ten villages close to the Krishna river, with a good climate and good markets, formed the first group, with a maximum of Rs. 2. Five villages farther inland, with a less certain rainfall, formed the second, with one of R. 1 12a. Two villages, with a smaller rainfall and inferior markets, at a maximum of R. 1 8a., formed the third; and the remaining two, not so well situated as any of the others, were the fourth group, with a maximum of 14a. Most of the villages held more or less garden land, of which about one-sixth was given to sugar-cane. The rest contained a little betel-leaf, turmeric, wheat, and vegetables. The old garden rates varied greatly, being as high as Rs. 8 3a. 6p. in one village. In most places water was found near the surface. The maximum rate in well-watered land was fixed at Rs. 4; in channel-watered, Rs. 4 12a.; and in land with two sources of irrigation, Rs. 6 4a.

The result of the new rates as a whole was as follows:—

Class.	Villages.	Former Rent (1851-52).	Cultivation.		Waste.		Total.	
			Area.	Rental.	Area.	Rental.	Area.	Rental.
		Rs.	Acres.	Rs.	Acres.	Rs.	Acres.	Rs.
1	10	64,499	34,070	45,112	9,426	7,409	43,496	52,521
2	5	15,348	10,188	9,463	8,053	4,640	18,191	14,103
3	2	2,257	1,785	1,290	913	314	2,698	1,604
4	2	7,390	6,603	4,191	2,194	1,192	8,857	5,383
	19	89,489	52,656	60,056	20,586	13,555	73,242	73,611

The settlement was introduced in 1852-53, reported in 1855-56, and sanctioned by Government in 1856-57.

The following statement shows the result of the Survey settlements in these villages between 1855 and 1865 :—

Year.	Occupied			Waste.			Total.	
	Area.	Assessment	Collections	Area.	Assessment	Grazing.	Area.	Assessment.
	Acres	Rs.	Rs.	Acres	Rs.	Rs.	Acres.	Rs.
1855-56	62,168	65,283	67,188	8,810	3,608	1,082	70,978	70,796
1864-65	70,763	71,575	71,473	966	740	1,652	71,749	72,213

It is thus clear that almost all the land worth cultivation had been taken up, the 986 acres of waste left in 1865 bearing an average assessment of only 12a.

KHATAO.

In 1858-59 the Survey settlement was introduced into 105 villages of Khatao and thirty-seven villages of the Mayni petty division of Khánápur. With the exception of about thirty villages in the north, Khatao was a table-land divided from Pandharpur on the east by a well-marked line of hills. On the east, towards Pandharpur, the rainfall was uncertain and scanty, whilst it increased in going westwards until it became sufficient and certain. Except in the east and south-east it was well placed for markets. The north-western villages resorted to Phaltan, and the western to Sattará, the two chief local trade centres, and there were smaller markets that were also useful. The people lived almost entirely by agriculture, those in the west being better off than those in the east on account of the soil being richer, and having better markets, and the larger proportion of irrigation. In the east they had been tempted to take up more land than they could till properly, attracted by the low rates of assess-

ment prevalent. The revenue system had been the same as in Pandharpur, described under Sholapur.

In the twelve years from 1847 to 1858 the area of cultivation had been 165,763 acres on an average, the collections, remissions and reductions for the same period having been Rs. 91,607, Rs. 19,907 and Rs. 58,066. For the five years 1853-58 the average acreage was 166,771, collections Rs. 88,257, remissions Rs. 23,153, and reductions Rs. 58,894. The average collections per acre thus did not amount to half a rupee. The new Survey measurements showed 276,760 acres of Government land in occupation and 23,376 of arable waste, or upwards of 100,000 acres of occupied land in excess of what was shown in the accounts. As the old survey showed only 8,098 acres of arable waste, nearly 100,011 acres of land which had been since cultivated must have been wrongly entered as unarable.

The 105 villages were divided into six groups with the lowest maximum rate of a rupee in the eastern, rising to R. 1 14a. in the western villages, as climate and markets improved. There were about 8,500 acres of garden land, mostly given to wheat and vegetables. The average of the old rates was high, and they varied considerably. The new rates were from Rs. 3½ in the first to Rs. 2 in the sixth class, the average increasing from east to west.

The estimated general result was as follows :—

Class.	Villages.	Collections of 1857-58.	Survey.			Maximum Dry-Crop Rate.
			On Area of 1857-58.	Waste.	Total.	
		Rs.	Rs.	Rs.	Rs.	Rs. a.
1	10	17,749	14,145	339	14,484	1 14
2	14	21,660	19,819	633	20,452	1 10
3	27	18,906	21,276	803	22,079	1 6
4	21	15,309	20,910	984	21,894	1 4
5	20	10,298	16,080	489	16,569	1 2
6	13	7,314	11,337	442	11,779	1 0
	105	91,236	1,03,567	3,690	1,07,257	—

This shows an immediate increase of about $13\frac{1}{2}$ per cent. in the revenue, to rise eventually to $17\frac{1}{2}$ when the waste was absorbed. The rates corresponded with those of other similarly situated villages of other subdivisions already settled. There was a reduction in the first two groups, but an increase in all the rest. The latter had much poor soil that was not brought to account by the old survey, and was held at even less than grazing rates. The same state of things had been found in Pandharpur, and the Náteputa petty division of Khátáo, where the increase in the assessment had not caused any dissatisfaction. The proposals were sanctioned in February 1859.

KHANÁPUR (*Maini Portion*).

The Mayni petty division of Khánápur was settled in the same year. Its thirty-seven villages lay close to, and corresponded with, the villages in the south-western half of Khatáo in climate and character. The large markets of Sattará and Karád were easily accessible by made roads. In the eleven years ending in 1857-58 tillage fell from 59,183 acres to 37,210, and collections from Rs. 42,700 to Rs. 37,210, whilst remissions increased from Rs. 1,180 to Rs. 4,590. The rates proposed were regulated by those of the corresponding Khatáo villages. The fifteen eastern villages corresponded with the third class of Khatáo and had a maximum of Rs. 1 6a.; the nineteen central villages were similar to the second class of Khatáo, and had the same maximum of R. 1 10a., while the two western villages corresponded with those of the first class in Khatáo and had also its maximum of R. 1 14a.

There were over 3,800 acres of garden land which under the old system had sometimes been oppressively assessed. The new rates were fixed at from Rs. $3\frac{1}{2}$ in first class villages to Rs. $2\frac{1}{2}$ in third class. As these rates led to a lowering of the assessment in garden lands, it was hoped the people would thereby be reconciled to the increase in dry-crop rates.

The general result of the settlement will be seen from the following statement:—

Class.	Vil- lages.	Old Assess- ment on Cultivation of 1857-58.	Survey.			Maximum Dry-Crop Rates.
			New Rates on the Same Area.	Waste.	Total.	
1	2	Rs. 3,634	Rs. 2,563	Rs. 165	Rs. 2,728	Rs. a. 1 14
2	19	21,384	27,785	1,557	29,342	1 10
3	15	12,190	13,109	986	14,095	1 6
	36	37,208	43,457	2,708	46,165	—

The immediate increase in revenue was thus 16·7 per cent., and if the waste was taken up it would rise to 24 per cent. Here, as elsewhere, all direct levies of fees from the ryots by district and village officers were put a stop to.

KOREGAON.

Twenty-five villages of the Koregaon subdivision were settled in 1859-60. It lay to the west of the hills that separate the valley of the Krishna from that of the Yerla and its feeders; the hills separated it from Khatáo. The climate was very good, the rainfall being more plentiful and certain than in the country to the east of the hills. The better kinds of soil generally produced two crops a year; 3,773 acres were in garden, chiefly watered by channels from the small streams that abounded. It was also well off for markets, the western villages being from four to ten miles from Sattára; in the south was the large market town of Rahimatpur, and in the north Deur, in addition to other smaller markets. Excellent made roads kept communication open all the year round. Manufactures were of no importance.

The old rates of assessment were high and extremely unequal. Permanent reductions of assessment (*lávni totá*) had been more sparingly granted in the villages near Sattára than in the eastern villages. The average dry-crop rates in entire villages were sometimes as high as Rs. 2, and those on garden lands Rs. 9. The

people were accordingly deeply in debt. A good deal of money came in from wages earned on the construction of the G. I. P. Railway and from the hiring out of carts for the Púna and Sattará traffic, otherwise an increase in cultivation could not have taken place.

In the twelve years ending in 1858-59 cultivation had fallen from 63,489 acres in 1847-48 to 60,428 in 1855-56, and again risen to 62,991 in 1858-59; collections similarly had fallen from Rs. 1,46,250 to Rs. 1,26,170, and again risen to Rs. 1,49,530. Permanent reductions of assessment were Rs. 25,295 in 1847-48 and Rs. 23,641 in 1858-59, while remissions had been as high as Rs. 24,591 in 1851-52, and from 1854-55 to 1858-59 varied from Rs. 3,493 to Rs. 8,936. The seventy-three villages were arranged for maximum dry-crop rates into three groups with maximum dry-crop rates from Rs. 3 to Rs. 2½; in the first class were nineteen villages in the west, the best off in the matter of climate and markets; in the third were the twenty-five villages in the east and north-east which were the worst off in these respects; and the intermediate twenty-nine villages were placed in the second class. The rates in the first two classes were higher than any hitherto introduced into any part of the Deccan. For garden lands the maximum rates proposed were Rs. 6½, Rs. 6, and Rs. 5½ for the three classes, but it was estimated that the average rate would not be more than Rs. 4. Notwithstanding the unusually high dry-crop rates, the general result was only a fall from Rs. 1,49,530 to Rs. 1,36,950, or 8 per cent. on the tillage of 1858-59.

Class.	Vil- lages.	On Cultiva- tion of 1858-59 (Old)	Survey.			Maxi- mum Dry-Crop Rates.
			On the Same (New).	Waste.	Total.	
		Rs.	Rs.	Rs.	Rs.	Rs. a.
1	19	61,946	51,606	1,281	52,887	3 0
2	29	53,054	48,334	1,585	49,919	2 12
3	25	34,535	37,009	1,622	38,631	2 8
	73	1,49,535	1,36,949	4,488	1,41,437	—

The rates were approved by Government in January 1860.

KHANAPUR (*Main Division*).

In the same year a Survey settlement was introduced into the Mámlatdár's division of Khánápur, in the east of the district. It contained fifty-six villages, which lay immediately to the south of the Mayni villages settled in the previous year. On the south it was bounded by Athni in Belgám, and Tásgáon. On the west lay the Karád subdivision. The rainfall diminished from west to east, and the cultivation and crops were similar to those of Korogáon. There were several small markets within its limits, but its principal market was Karád, about ten miles to the west. The road to the coast by the Kumbharli Pass ran through the south of Khánápur from east to west, and the Belgám-Sattará road passed through the west from south to north, so that, as regards roads and markets, the western villages had an advantage over the rest. The people were fairly well off, and not so hampered by debt as those in Koregáon. Manufactures were inconsiderable.

During the period of twelve years ending in 1858-59, the area of tillage had not varied much. The average acreage had been 66,503 acres, and the average collections Rs. 57,990. Permanent reductions had been from a little over Rs. 14,000 to Rs. 15,000, whilst in 1857-58 and 1858-59 ordinary remissions practically disappeared. Whilst under the Sattará Rájás the permanent reductions had neither been unnecessarily lavish, as in the east, nor too restricted, as in the west.

The average rates of assessment in all but the latter part of the country had been low; at the same time the assessment was very uneven. The Survey proposed four groups for maximum rates of dry-crop assessment, consisting of seventeen, nineteen, thirteen, and seven villages, the rates being Rs. 2, R. 1 12a., R. 1 9a., and R. 1 6a. respectively. The first was in the west, with the best climate and markets, and the other three joined it successively towards the east. Rs. 5 and Rs. 4½ were the highest garden rates proposed in the first and second classes, and Rs. 4 and Rs. 3 12a. for the third and fourth. As much of the garden land was, however, poor, the average, it was estimated, would not come to more than Rs. 2 12a.

The general effect of the new settlement was to increase the revenue but slightly, from Rs. 67,390 to Rs. 67,430, and to leave a possible increase, if the waste lands were taken up, from Rs. 67,432 to Rs. 73,420, or nearly 9 per cent.

The following statement shows the details for the different groups:—

Class.	Villages.	Old Assessment on Tillage of 1858-59.	Survey.			Highest Dry-Crop Rates.
			New Assessment on the Same Area.	Waste.	Total.	
1	17	Rs. 19,468	Rs. 16,387	Rs. 1,737	Rs. 18,124	Rs. a. 2 0
2	19	23,343	25,238	2,166	27,404	1 12
3	13	19,545	20,162	1,352	21,514	1 9
4	7	5,038	5,645	733	6,378	1 6
	56	67,394	67,432	5,988	73,420	—

It will be seen that there was a sensible lowering of rental in the first group, where it was apparently required. The proposals were sanctioned by Government in January 1860.

VÁI.

Vái, in the extreme north-west of the district, was the next subdivision to receive a Survey settlement. In the Mámlatdar's and Maháلكari's charges together there were 103 villages. It lay west of Koregáon, was bounded on the south and south-east by Sattará and Jáoli, and on the west by the villages on the Mahábleshvar hills under the charge of the Superintendent of the hill station. The Maháلكari's villages were in the valley of the Níra river in the north. In the eastern villages of this charge the rainfall was somewhat light and uncertain, but very favourable in the western. Those of the Mámlatdar's charge, from east to south, were as good for dry crop as could be found. Nearer and under the Mahábleshvar hills the rain became too heavy for dry-crop, and the cultivation on the sides and tops of the hills was by no means continuous, fallow for from three to eight years being allowed

after two or three years' cropping with hill grains. Rice was also raised near the hills, and there was a good deal of garden land, partly irrigated from wells, but mostly from channels led from perennial streams.

Vái was well off for markets. There was a daily market in the town itself, and beyond the boundaries were Bhor, Sattará, Phaltan, and Malcolmpeth (Mahábleshvar). Roads were open to Púna and Mahábleshvar, and the people on the whole were fairly well off. The hill people found a good outlet for jungle produce at the hill station.

The subdivision had been surveyed by Capt. Adams in 1820 to 1824, and his measurements had formed the basis of the accounts, but the ancient rates of assessment had been continued. Permanent reductions (*lavni totá*) had been made more freely in the east than in the west near Sattará under the Rájás' management, the principle of which was to squeeze the last rupee out of good soils, and let the poor go for what they would fetch. A common result was that good soils went out of cultivation, and the people were obliged to cultivate the poorer soils. The dry-crop rates were Rs. 4 and Rs. 5, and in garden lands they rose as high as Rs. 12 or Rs. 14, but the ordinary average garden rate was from Rs. 2 to Rs. 5. The cultivated area had in the thirteen years ending in 1859-60 averaged 83,730 acres; collections had increased from Rs. 78,140 in 1853-54 to Rs. 1,05,310 in 1858-59. Remissions, in addition to the permanent reductions, had averaged Rs. 10,450. In the last few years they had been less, on account of the rise in prices.

An increase in cultivation set in in 1855-56, when measurement began, and continued steadily, so that collections also were larger by about 12 per cent. The old assessment was very uneven, considerable areas having been taxed at needlessly low rates, so that readjustment was required more than lowering.

The twenty-nine villages in the Mahálkari's charge were classed in four groups. In the first were seven villages in the west, with the best rainfall, and in the fourth, eight of the dry villages bordering on the Púna and Sattará road. The other two groups, of nine and five villages, lay intermediately between the first and fourth.

The seventy-four villages under the direct charge of the Mám-latdár were arranged in six classes, with maximum dry-crop rates from Rs. 3 to Rs. 1. The first took in twenty villages in the east, which had an ample but not excessive rainfall; and the second, third, and fourth proceeded in regular order westwards, the rainfall becoming too heavy for dry-crop, and the villages cut off from markets. Those had ten, four, and eight villages respectively, with maximum rates of Rs. 2 10a., Rs. 2 6a., and Rs. 2 2a. The fifth and sixth class villages were hill villages, which had some permanent cultivation, some *tisáli*, or land cropped for three years and then left fallow from one to four years; and the rest *kumri* or *dali*, on the hill sides, where the crops were grown in ash-manure. The two latter had rates of 6a. and 3a. The lands permanently cropped stood at R. 1 and R. 1 2a. The new garden rates ranged from Rs. 2 12a. in the fourth group under the Mahálkari to Rs. 5½ in the first under the Mám-latdár.

The average rice rates were Rs. 3 3a. 9p. in the villages under the Mahálkari, and as follows in the Mám-latdár's six groups:—

	Rs. a. p.		Rs. a. p.		Rs. a. p.
1st class .	2 12 5	3rd class .	3 13 10	5th class .	4 2 10
2nd class .	5 5 7	4th class .	4 11 6	6th class .	4 6 3

The following statement shows the general result of the revision :

		Class.	Vil- lages.	Old Assess- ment on Cultivation of 1859-60.	Survey.		
					New on Same Area.	Waste.	Total.
				Rs.	Rs.	Rs.	Rs.
Mahál- kari	{	1	7	9,511	7,074	198	7,272
		2	9	8,932	8,264	92	8,356
		3	5	6,622	6,544	54	6,598
		4	8	8,048	10,321	130	10,451
Mám-lat- dár	{	1	20	46,599	39,845	836	40,681
		2	10	11,071	10,045	177	10,222
		3	4	2,066	1,549	21	1,570
		4	8	2,394	2,466	79	2,545
		5	23	6,708	6,438	70	6,508
		6	9	2,415	2,732	49	2,781
		103	1,04,366	95,278	1,706	96,984	

The rental was thus lowered by about 9 per cent., with a margin of only Rs. 1,706 to be made up by new cultivation.

SATTARA.

In 1861-62 the Sattará subdivision of 101 villages was settled. Sattará was bounded on the west by the range of hills that runs parallel to the main crest of the Sahyádris, separated from it by the Koina valley; on the north by Koregáon, on the east by the Krishna river, and on the south by Targáon. It consisted of two valleys, that of the Yenná on the north, and that of the Urmodi or Párli river on the south of the Sattará fort range. Both these rivers fell into the Krishna, and their valleys merged into that of the latter, which formed the eastern boundary of the subdivision. Throughout the eastern half of the subdivision the rainfall was so certain and ample that in most seasons all good dry-crop soils yielded two crops. Towards the west the rainfall became heavier, till, in the hill villages at the head of the Párli valley, only hill grains and rice could be grown. A considerable area of garden land was watered from wells and channels (*páth*) in the centre and east, and from channels in the west almost exclusively.

The only villages not well off for communications were those at the head of the Párli valley, but these even were not more than twelve miles in a direct line from Sattará. The subdivision was exceedingly well off for markets, Sattará itself requiring every kind of field produce, and the numerous lines of traffic demanding large supplies of grain and fodder for cattle. On the whole the people were well to do, the ryots being able to eke out a living even where the rates were heaviest, by hiring out carts and working in Bombay.

In the fourteen years ending in 1860-61 the area in occupation averaged 43,643 acres, the collections Rs. 85,770, and the remissions Rs. 6,720. All this time the *lúmi tota* varied from Rs. 11,640 to Rs. 12,352. As in Koregáon and Vái, the assessment was extremely uneven, and in the east very high, being in some cases as high as Rs. 10 or Rs. 12. They could probably never have been realised,

as there was a large proportion of poor soil; but there was a large area of land held rent-free, or paying only quit-rents, to make up for the loss, on consideration of which the Rájás had levied heavy rates on the Government lands.

Survey rates corresponding to those fixed in the previous year in the Mámlatdár's division of Vái were proposed, the villages being divided into seven groups, with maximum rates ranging from Rs. 3 down to R. 1 in the hill villages. Forty-four villages to the east, and as far as a little to the west of a line running north and south through Sattará, were placed in the first class. These included all the highly assessed villages. Thence towards the west the group rates fell as the rainfall became excessive and the villages less accessible. There was a sudden drop in the two lowest groups, which were made up of hill villages only.

The following two statements show the maximum rates, &c. in the various groups and the general effect on the rental.—

Class.	Vil- lages.	Maximum Dry Crop.		Average Garden Rate.		Rice.		
		Rs.	a.	Rs.	a.	Maximum. Rs. a.	Average. Rs. a. p.	
1	44	3	0	} 5 14		9 0 {	3	7 8
2	12	2	10				4	4 5
3	10	2	6	} 4 8 {		8 0 {	4	5 4
4	7	2	2				4	11 3
5	7	1	14	} 4 0 {		7 0 {	4	11 9
6	11*	1	1				5	6 2
7	10*	1	0	3	0	6 0	4	10 4

Class.	Vil- lages.	Old Assessment on Tillage of 1860-66.	Survey.		
			New on the Same Area.	Waste.	Total.
		Rs.	Rs.	Rs.	Rs.
1	44	71,310	61,945	2,460	64,405
2	12	6,712	6,747	120	6,867
3	10	5,391	7,054	61	7,115
4	7	3,007	4,111	24	4,135
5	7	1,872	2,054	21	2,075
6	11*	2,132	2,255	6	2,261
7	10*	1,461	1,762	51	1,813
		91,885	85,928	2,743	88,671

* Hill villages.

Government merged both the sixth and seventh groups into one, with a maximum rate of R. 1, but with this exception sanctioned the proposals.

JÁOLI.

In 1861-62 the revision of Jáoli was undertaken. It consisted of three main valleys, the Kudál valley, the Medha valley, up which the Sattará and Mahábleshvar road ran, and the upper Koina valley, with a portion of the table-land on each side of the Koina, the last running north and south, parallel to the Sahyádris, and the other two from east to west. Every variety of climate occurred within its limits. In the east of the Kudál valley, near the Vái and Sattará road, the rains were light enough to admit of first-class dry-crop cultivation, while at Mahábleshvar the fall was from 150 to 370 inches, so that nothing but hill-grains could be grown. In the eastern Medha and Kudál valley villages, in the better kinds of soil, two crops could be grown in the season. In the hill villages most of the land was cropped for two or three years and then left fallow for from three to six. Rice was the staple crop in all these villages, and some villages produced considerable quantities of sugarcane.

The Jáoli hill villages were well off for markets. Sattará was within easy reach of the eastern Medha villages, and produce from all the hill villages was absorbed by Mahábleshvar; the latter were all within twelve or fourteen miles of it but the extreme southern villages on the Koina. These were within a reasonable distance by bullock track of the port of Chiplún, whence all sorts of produce went by sea to Bombay. A considerable bullock traffic between the plains above the hills and the port of Mahád also moved by the Medha and Kudál valleys across the Mahábleshvar range, and created a great demand for fodder.

The revenue management in the greater portion of these valleys was very rude. The lands of a village were generally divided among a number of persons originally of one family and bearing the same name. The villagers knew the portions held by each, but there was no precise record of the situation of the lands of each shown in the accounts. Each person was debited with his share of the village revenue. Those whose names were entered in the accounts tilled

part of their land themselves and sublet the rest to others on their own terms. In the Medha and Kudál valleys land of similar quality in adjacent villages was let at very different rates, and the assessment consequently was very uneven. In the hill villages the assessments were generally moderate, but though prices had of late doubled, the revenue had not increased more than 10 per cent. The condition of the people had, however, improved, as the rise had enabled them to do without remissions, and to bring all but 923 acres of the arable waste into cultivation.

In the fourteen years ending in 1860-61 collections had first fallen from Rs. 38,500 in 1847-48 to Rs. 21,940 in 1853-54, and again risen to Rs. 41,580; remissions had also risen from Rs. 2,330 in 1847-48 to Rs. 16,950 in 1853-54, and again fallen to Rs. 40 in 1860-61. The 141 villages were arranged in seven classes with dry-crop rates from Rs. 3 to R. 1 la. They were almost the same as those proposed for Sattará. A rate of Rs. 3 was fixed for the villages farthest east in the Kudál valley on the Sattará-Vái road, and became smaller towards the western hills. In the sixth and seventh class hill villages the dry-crop and hill rates were rather higher than those of the Sattará hill villages, as they profited by the nearness of Mahábleshvar and Chiplún. Garden land was almost confined to the Medha and Kudál valleys; in the hill villages and Koina valley there was but little. The same rates as for Sattará were proposed for them.

The grouping and rates were as follows :—

Class.	Vil- lages.	Maximum Dry Crop.		Average Garden.		Rice.					
						Maximum.			Average.		
		Rs.	a.		Rs. a.	Rs.	a.		Rs.	a.	p.
1	8	3	0	}	5 4	9	0	}	2	10	1
2	6	2	10						5	0	0
3	14	2	6	}	4 8	8	0	}	4	8	6
4	7	2	2			7	0		4	10	4
5	14	1	14	}	4 0	7	0	}	5	4	0
6	73*	1	2			7	8		3	11	11
7	19*	1	1	}	3 4	7	0	}	4	14	2
	141										

Hill villages.

Class.	Villages.	Old Assessment on Cultivation of 1860-61.	Survey.		
			New on the Same Area.	Waste.	Total.
		Rs.	Rs.	Rs.	Rs.
1	8	6,813	6,049	69	6,118
2	6	3,305	3,123	37	3,160
3	14	5,619	5,902	4	5,906
4	7	2,515	2,956	5	2,961
5	14	4,580	5,162	48	5,210
6	73*	15,610	13,792	40	13,832
7	19*	3,137	3,036	50	3,086
	141	41,579	40,020	253	40,273

* Hill villages.

On the cultivation of 1860-61 this showed a fall from Rs. 41,579 to Rs. 40,020, or 3·7 per cent. These proposals were sanctioned by Government with the same exception as in Sattará, viz. that the two lowest classes, the hill villages, were placed under a single maximum rate of R. 1.

TÁRGÁON.

The Tárgeón subdivision, comprising in the charges of the Mámlatdar and Mahálkari fifty-five villages, came under revision in 1861-62. In position it corresponded with that of Sattará, except that it stretched a little farther east and west. On the west it touched the main Sahyádrí range, including the lower Koina valley, and in the east it reached the hills that separated Khatáo and Khánápur from Koregáon, Sattará, and Karád in the Krishna valley. The bulk of the Mámlatdar's villages were in the Krishna valley, where the rainfall was generally sufficient and certain for good dry-crop cultivation, two crops often being raised in the same season. Farther to the west the rains became heavier, till on the western border only hill cultivation became possible.

The valleys of the Krishna and Koina were well provided with roads leading to the markets of Karád and Sattará, as well as to the seaport of Chiplún. The produce of the hill villages was easily disposed of in the Konkan.

For some years before the Survey (1857-62) the men of this part of the country had been in the habit of leaving their homes and going to labour at Bombay, Khandála, or even beyond sea to China. Thus the people on the whole were fairly well-to-do. The land was carefully tilled, and the burden of the debt had been lightened by the recent rise in prices. In the fourteen years ending in 1860-61 the cultivated area averaged 51,995 acres, collections Rs. 86,600, and remissions Rs. 8,900.

The fifty-five villages were arranged in six classes for maximum dry-crop rates, which nearly corresponded with those in Sattará. The first group, of twenty-four villages, included all in the centre of the Krishna valley, the best off for climate and communications. The second, of seven villages, included some under a ridge parallel to the Sahyádris, not so favourably situated with regard to communications, and those immediately to the west of the first class. The third, fourth, and fifth contained only one, two, and five villages respectively, which lay farther and farther to the west, the reason of their being so few in number being that in those quarters most of the villages were alienated. The sixth class consisted of three hill villages in the Mámlatdar's and thirteen in the Maháikari's charge; they were in out-of-the-way positions, and in an inferior position to both the Sattará and Jáoli villages. The best garden lands of Targáon were superior to those of Sattará, and the rates were somewhat higher. There were only 153 acres of rice land in the first four classes, assessed a little lower than in Sattará.

The following statement shows the several rates :—

Class.	Vil- lages.	Maximum Dry Crop.		Average Garden.		Rice Land.		
						Maximum.	Average.	
		Rs.	a.	Rs.	a.	Rs.	a.	p.
1	24	3	0	5	12	9	0	3 7 2
2	7	2	10	5	0	8	0	4 5 4
3	1	2	6	4	8	7	8	3 6 10
4	2	2	2	4	8	7	0	2 0 11
5	5	1	14	4	0	7	0	4 13 7
6	16	1	0	2	8	5	0	2 12 8

The new assessments showed a fall of 7 per cent., from Rs. 93,340 to Rs. 86,530, shown in detail of classes below :—

Class.	Villages.	On Cultivation of 1860-61 (Old).	On the Same Area (New).	Rice.	
				Waste:	Total.
		Rs.	Rs.	Rs.	Rs.
1	24	71,730	64,609	2,318	66,927
2	7	14,328	14,090	522	14,612
3	1	1,401	1,435	—	1,435
4	2	982	814	4	818
5	5	1,661	1,675	2	1,677
6	16	3,236	3,911	44	3,955
	55	93,338	86,534	2,890	89,424

There was, it will be seen, a considerable reduction in the first class, where the existing rates had in some cases been excessively high. In the other classes down to the fifth the old assessments had been much more moderate. In the hill villages the dry-crop rates rose, and those in rice lands were reduced.

KARAD.

In 1862-63 the Survey settlement was carried into effect in eighty-eight villages of Kárad, and in the remaining fifty-three villages of Targáon in the Helvak petty division. Karád lay to the south of Targáon, and was very similar to it and Sattará. On its east lay Khánápur, separated by a range of hills. It consisted of three valleys, viz.: part of the Krishna valley, the main direction of which was north and south, the lower part of the Koina, running east and west, and the valley of Kola, running west between high spurs up to the inner range of the Sahyádris.

All these valleys contained the finest black soil, and the rains were as certain and ample as in Targáon and Sattará. In the

villages at the head of the Kola valley and on the table-land on the top of the hills which bounded it, the rainfall became too heavy, and the ordinary dry-crops were replaced by hill grains. The dry-crop tillage of the centre of the subdivision was excellent, and there were 4,684 acres of garden lands, producing sugar-cane, tobacco, and other valuable products. There were 1,911 acres of rice, chiefly in the western villages, much of which yielded second crops.

Except in the Kola valley, the subdivision was well off for markets and roads. The road from Belgám and Kolhápúr to Sattará passed along the right bank of the Krishna, and that by the Kumbhárli pass to Chiplún up the left bank of the Koina, producing a large demand for fodder. Karád itself was a place of considerable trade, and there were other minor local markets. Chiefly from the opening of the Kumbhárli pass and the recent high prices, the people were well-to-do, though not free of debt, except in the upper Kola valley, where the rain was excessive and they were far from markets. In the Koina and Krishna valleys cultivation was careful and good. In the fifteen years preceding the Survey in Karád cultivation had averaged 74,359 acres, collections Rs. 1,69,030, and remissions, in addition to the permanent reductions from the old nominal gross rental (*kamál*), Rs. 9,830. Large expenditure on public works had also for some years provided ample employment for the labouring classes, and thrown money into the country. Assessments were still, however, uneven, and in some cases high. Where there was much alienated land these high rates were an indirect method of deriving revenue from them; for no one was allowed to hold highly assessed Government land without holding alienated land with it.

The eighty-eight Karád villages were thrown into six classes. The first contained forty-one in the valley of the Krishna and the lower Koina and Kola valleys near their meeting with the Krishna. These had a certain supply of rain, and were well placed for roads and markets. The second, third, and fourth groups included the less accessible Koina and Kola valley villages farther to the west. The second class also included villages to the east, under and among the spurs of the hills to the east of the Krishna valley. The fifth class included the villages at the head of the Kola valley

and the sixth the hill villages on the slopes and tops of the hills enclosing the valley.

The maximum dry-crop and garden and rice rates were as follows:—

Class.	Dry-crop. Rs. a.	Garden and Rice. Rs.
1	3 0	9
2	2 10	8
3	2 6	7½
4	2 2	7
5	1 14	7
6	1 0	5

The general result was a reduction of 11 per cent. on the collections of the year previous to the settlement.

Class.	Vil- lages.	Old Assessment on Cultivation of 1861-62	Survey.		
			New Assessment on the Same Area.	Waste.	Total.
		Rs.	Rs.	Rs.	Rs.
1	41	1,24,324	1,08,326	5,576	1,13,902
2	12	25,926	26,856	1,695	28,551
3	11	18,422	14,778	514	15,292
4	8	6,886	5,062	351	5,413
5	8	8,037	7,697	275	7,972
6	8	2,167	2,578	253	2,831
	88	1,85,762	1,65,297	8,664	1,73,961

The first class villages, in which there was a considerable reduction, were those in which the system of taxing Government lands heavily, in order to derive revenue from alienated lands held conjointly with them, had prevailed. In the third, fourth, and fifth classes it was necessary to mark the difference in the value of land in them and that of the second class by the latter having been provided with improved communications.

TÁRGÁON (HELVAK).

In 1862-63 the fifty-three villages of the Helvak petty division were revised to complete the entire subdivision of Tárjáon. They were mostly near the Sahyádris, in the Koina valley or on the hills that surrounded it, and joined the Karád portion of the valley. The Karád-Chiplún road, running along the left bank of the Koina, gave the villages a decided advantage in disposing of fodder and grain for cattle. It had 1,171 acres of Government rice land, and 190 of garden. Most of the cultivation was that of hill grains, which required fallows. The condition of the people, as in Karád, was well-to-do in the lower Koina, and poor in the hill tracts. In the fifteen years ending in 1861-62 the Helvak area of tillage had averaged 31,951 acres, collections Rs. 10,490, and permanent reductions between Rs. 3,400 and Rs. 4,369. Remissions since 1855-56 had been nothing or merely nominal. The remarkable fall in area and collections from 32,364 acres and Rs. 11,000 in 1847-48 to 31,674 acres and Rs. 10,780,* notwithstanding the rise in prices, was explained by the fact that most of the villages paid an assessment in the lump, so that all the arable land was shown as occupied, which it really was not. The Tárjáon rates appeared suitable to these villages, which were thrown into four groups, with maximum rates varying from Rs. 2 2a. to R. 1, and garden rates of Rs. 7 and Rs. 5.

The general effect of the new proposals will be seen from the annexed statement:—

Class.	Villages.	Old Assessment on Cultivation of 1861-62.	Survey.		
			New Assessment on the Same Area.	Waste.	Total.
1	2	Rs. 1,511	Rs. 1,925	Rs. 19	Rs. 1,944
2	7	3,932	5,430	19	5,440
3	12	662	882	4	886
4	32	4,672	5,644	135	5,779
	53	10,777	13,881	177	14,049

The rise from Rs. 10,777 to Rs. 13,881, or 28 per cent., was proposed on the ground of the opening of the Kumbhārli pass, and the late great rise in prices. It was, it will be seen, general in all four groups. Both Karád and Helvak were sanctioned in March 1863.

VALVA.

The last of the Sattará subdivisions, Válvá, was settled in 1862-63. It lay in the south-west corner of the district between the Várna and Krishna rivers, and was dealt with according to its old boundaries, notwithstanding some recent redistribution of some of its villages. It lay to the south of Karád, and was otherwise bounded on the north-east and east by the Krishna, and the south and south-west by the Várna. The east, near where the Krishna and Várna met, was a rich plain of black soil. Towards the west it became more hilly, broken by small spurs from the Sahyádris, with tracts of *mál* or stony land. In the west itself it was exceedingly hilly. The rainfall varied, being too heavy on the Sahyádris and for some miles down the Várna for any but hill grains, and proceeding eastward became, to the east of the centre of the subdivision, well suited for dry crops. The centre and west had also much rice and garden land, the latter watered both from wells and channels, and producing considerable crops of sugar-cane. The Sattará-Kolhápur road crossed the tract from north to south, and a cleared branch of this passed southwards to Battis-Shirála. These were the only made roads. Traffic was, however, practicable for nine months to seaports in Ratnágíri, or eastward to Sánгли and Míraj. The people were on the whole prosperous, and the ruling assessment light compared with that of Karád or Tászáon.

In the fifteen years ending in 1861-62 the area of cultivation had risen about 8,000 acres, and collections from Rs. 2,10,768 in 1847-48 to Rs. 2,84,605 in 1861-62. The returns of area were unreliable, as the Survey records proved that one-fourth had not been brought to account. Of the whole Survey area of 157,129

acres, 10,777 were good garden and rice lands. The existing average acre rate of R. 1 7a. 11p. could not have been on the whole heavy, therefore, but the burden of assessment was probably unevenly distributed. Remissions had greatly decreased with the rise in prices, in consequence of which the assessment had grown light.

Six classes for maximum rates of dry-crop assessment were arranged, with rates from Rs. 2 10a. to R. 1. Those in the first class were near Karád, in the Krishna valley. The second took in all of central and south-eastern Válvá to a little to the west of the Kolhápúr-Sattará road. Their highest rate was Rs. 2 6a. For the remaining classes the rates fell as the groups lay more to the west, as shown below. The general result was a rise of 5 per cent. on the rental of 1861-62 from Rs. 2,34,605 to Rs. 2,53,491:—

Class.	Vil- lages.	Old Assess- ment on Tillage Area of 1861-62.	Survey.				
			New Assess- ment on the Same Area	Waste	Total.	Maxi- mum Dry Crop	Rice and Garden Maximum
		Rs.	Rs.	Rs.	Rs.	Rs. a.	Rs. a
1	10	64,663	62,863	2,166	65,029	2 10	8 0
2	37	1,28,664	1,46,756	4,437	1 51,193	2 6	7 8
3	11	13,958	13 639	379	14,018	2 2	7 0
4	15	14,511	16,984	418	17,402	1 14	7 0
5	12	9,600	10,223	375	10,598	1 10	6 0
6	18	2,909	3,026	1,390	4,421	1 0	5 0
Total	103	2,34,605	2,53,491	9,170	2,62,661	—	—

A marked increase of tillage area and collections accompanied and followed the introduction of the Survey settlements. From 1855, when it affected seventeen villages, to 1881-82, after it had been extended to the whole 981, the net revenue rose from Rs. 10,99,734 to Rs. 11,80,096. The cultivated area of Govern-ment land rose from 812,675 acres to 1,360,734, and that of waste fell from 185,188 acres to 77,612. The value of grazing fees fell with this from Rs. 18,155 to Rs. 2,908. The waste still left was of small value, the average assessment being only 3a. 7p. In-clusive of quit-rents, the realisable revenue in 1881-82 had risen from Rs. 11,39,564 to Rs. 13,59,457. The remissions had fallen from Rs. 2,93,381 to Rs. 148.

TASGAON.

The thirty-six villages now comprised in the subdivision of Tásgáon came under revision, on the expiration of the first guaranteed period of thirty years, in 1887. The Superintendent's proposals were sanctioned in the same year. It is bounded on the north by Khánápur, on the east and south by villages belonging to the Jath, Sàngli, and Míraj States, and on the west by Válvá. Its villages are throughout intermingled with those of the Native States mentioned.

In the north-eastern portion, where, as well as in the eastern, the villages are much cut up by ranges of low hills branching from the Khánápur plateau, the soil is as a rule poor and light. Near Tásgáon the country is more open, and thence towards the south and west come the fertile, wooded plains of the Krishna and Yerla valleys, with their deep alluvial soil continually renewed by the silt deposited by the annual river floods.

The annual rainfall at Tásgáon, which may be taken as that of the villages in the plain, is 27·58 inches. In the north-east it is somewhat heavier. Two villages in the plain to the south-east have an uncertain rainfall.

Two-thirds of the cultivated area is taken up with *kharif*, or early crops, 23 per cent. with late crops (*rabi*), and about 10½ per cent. are fallow, and produce grass. The area under rice is only 144 acres, distributed over twenty-two villages. Tobacco and cotton are mostly raised in the western villages. There is a fair amount of garden cultivation maintained by irrigation from streams, and producing sugar-cane and vegetables. The husbandry is on the whole careful, and the fields are clean, especially in the west, whereas in the eastern villages cultivation is not so good. Manure is generally used throughout.

Tásgáon is on the whole well off for roads, and the West Deccan Railway runs for twenty miles through the plain of the Krishna, having three stations useful for the disposal of local agricultural produce. Tásgáon itself is the chief trade centre, but Sàngli, Míraj, and other good markets are easily accessible from those portions of the subdivision which lie nearest to them. Weaving

is carried on in Tásgáon and Palus, but is not of any great importance as an industry. With the exception of cows, buffaloes and their young, which have decreased by 30·8 per cent., there has been an increase during the Survey settlement under every head, by which the prosperity of the people may be estimated. Population has increased by 28·5 per cent., houses by 38·6, agricultural cattle by 43·5, carts by 52·2, and wells and water-lifts by 81 per cent. The increase in carts, many of which are used in the carrying trade to and from the Konkan, viz., from 320 to 1,991, is a striking proof of improvement in the communications of the country. Of the occupied lands 70·5 per cent. were held by the occupants themselves and in partnership with others, while 26·5 per cent. were sub-let on cash and grain rents. Of 121 cases of sales of land, 117 were private, and realised on an average over twenty-two times the assessment, the remaining four sales under orders of Court having fetched over $8\frac{1}{2}$ times. In 83 cases of mortgage nearly $15\frac{1}{2}$ times the assessment was advanced, and in 133 cases land was sub-let for over $3\frac{1}{2}$ years' assessment. Prices of produce, especially in wheat and cotton, of the latter of which there were 8,670 acres, have increased greatly of late years, and the opening up of the country by railways will tend to keep them from falling again.

The effect of the introduction of the revised Survey rates up to 1865 has already been given. There were then less than 1,000 out of 70,763 acres left unoccupied in nineteen villages, and there were at the revision 5,293 acres, assessed at an average of 5a. 8p., in the thirty-six villages out of 123,000 acres. Even in the year of famine there were outstanding balances of revenue in only two villages, and the decrease in cultivated area was small and confined to the poorest soils. The remissions in the same period have been insignificant, having been found necessary only in the first four years of the settlement, and since then having disappeared altogether. From 1883-84 to 1885-86 only seventy-seven notices of sale of occupancy rights for non-payment of revenue were issued, and in none of these was the sale enforced.

The re-grouping of the villages for maximum rates of dry-crop assessment has followed the general lines of former settlements, and the highest maximum rate has been raised from Rs. 2 6a. to

Rs. 2 10a. The new groups are seven in number, and their rates run from the latter down to R. 1 2a., generally as they lie progressively towards the east, where the rainfall is the most uncertain. The westerly villages, moreover, have a considerable advantage over those in the east, from being on or near the line of the West Deccan Railway. The 144 acres of rice land, formerly only eight acres, have been assessed at a uniform maximum of Rs. 8. The average rate comes to R. 1 7a. 11p. Garden land, originally 3,092 acres, with an average assessment of Rs. 2 12a. 2p., has now increased to 6,593 acres, with an average of Rs. 2 10a. 5 p., divided as follows :—

	Acres.	Rs.	Average. R. a. p.	
Under wells .	3,470	6,394	1	13 6
Under channels	3,355	9,043	3	13 5

2 10

In the former, that under old wells has been brought down to the highest dry-crop rates, and that under new wells has had no extra assessment imposed upon it, except in cases of improved water-supply arising from percolation from State irrigational works, when double the dry-crop rates will be charged.

The general result of the revision has been as shown in the following statement :—

Groups and Villages.	Rate.	Old Survey.		Revision Survey.						Increase %.
		Area.	Assess-ment.	Occupied Land.		Waste.		Total.		
				Area.	Assess-ment.	Area.	Assess-ment.	Area.	Assess-ment.	
	Rs. a.	Acres.	Rs.	Acres.	Rs.	Acres.	Rs.	Acres.	Rs.	
1.—1	2 10	2,623	6,594	2,643	6,941	—	—	2,643	6,941	5.2
2.—13	2 4	45,365	58,093	45,738	77,268	2,339	998	48,977	78,266	33.0
3.—3	2 0	5,867	5,096	6,091	6,661	105	100	6,196	6,761	30.7
4.—8	1 14	25,139	19,125	26,259	23,334	1,180	437	27,439	23,771	22.0
5.—4	1 10	5,503	3,077	5,783	4,157	514	64	6,297	4,221	35.1
6.—3	1 6	17,506	6,179	18,536	7,857	243	27	18,779	7,884	37.2
7.—4	1 2	12,485	5,300	12,658	6,370	912	157	13,570	6,527	18.6
36	—	114,507	1,03,524	117,708	1,32,588	5,203	1,783	123,901	1,34,371	28.1

The fifth group is the only one in which the increase exceeds the limit laid down by Government in 1874. This has arisen from the large area brought under irrigation in the course of the settlement from streams, for which water-rates have been charged

for the first time. The largest increase in revenue is in the second group, which is exceptionally well situated both with regard to communications and general fertility. The old assessment on Government land averaged 14a. 6p. per acre. The new average is 3a. 6p. more, or R. 1 2a.

MAN.

A revision of the Survey settlement in the Mán and Khatáo Tálukas was carried out in 1890. The seventy-two villages of the former and fifty-five of the latter were formerly all included in the latter, and a better view of the results of the settlement as a whole would have been obtained if the two had been combined. As, however, they have now been separated for local administrative purposes, and revised in distinct operations, they will be kept apart in this history.

To commence, then, with the seventy-two villages of Mán, which are contiguous to those of Khátáo on the north-east. In this, as in other revisions, the original measurement and classification of soils were merely tested to ascertain their accuracy according to the most recent standards. In re-measurement only 288 out of 15,798 Survey numbers were found to need correction. Of these mistakes in the old work were found only in twenty-seven; 179 had to be revised in consequence of changes arising from the action of floods and alterations in roads, and eighty-two from other causes. Classification was found to be sufficiently accurate to admit of its being adopted as a whole with the general modifications required to make it conformable with the practice now adopted. The per-centage of re-measurement and re-classification was 5.9 and 3.2 respectively. The total per-centage of difference between the old and newly recorded area was only .03.

The Táluka has not benefited as other parts of the Collectorate have by the construction of the West Deccan Railway. There are no large marts easily accessible. The small local markets of Mhasvád and Dahívádi seem to suffice for most of the wants of the people, and intercommunication between the different villages

by means of the old Sholápur-Sattará and several other local roads is easy.

The extent to which this tract of country has improved since the date of the original settlements may be estimated from the following figures. The number of houses has increased $77\frac{1}{2}$ per cent., and of this 76·2 was in superior, and only 1·3 per cent. in inferior, descriptions. Carts have risen from only 34 to 295 in number, and wells of all sorts from 504 to 942. On the other hand, population and agricultural cattle have only increased by 24·7 and 5·7 per cent. respectively, but this small proportion is sufficiently accounted for by the occurrence of the famine of 1877-78, up to which year people had increased by about the same per-centage as at present. In the subsequent period of eleven years the loss which then occurred appears to have only just been made up. The large increase in the number of houses and the number of wells used for irrigation, with the proportionately still larger use of carts, are unmistakeable signs of advancing prosperity. In the same period the area of arable land available for cultivation has been almost entirely absorbed, and nearly 1,550 acres more are devoted to garden cultivation than there were formerly.

Very little change has been made in the original grouping of the villages for maximum rates of dry-crop assessment. It depends, as before, chiefly on the climatic consideration of distance from the Gháts and decrease of rainfall, as the several villages lie more to the east. Four, in place of the five original groups, have been formed by the combination of most of the villages in the old fourth and fifth into one. The maximum of this has been raised from R. 1. to R. 1 4a.; that of the third from R. 1 2a. to R. 1 7a.; that of the second from R. 1 6a. to R. 1 10a., and that of the first from R. 1 10a. to R. 1 12a. In garden lands a maximum rate of Rs. 8 for combined land and water assessment gives an average rate of 14a. 2p. for land under wells and of R. 3 3a. 10p. for that under irrigation channels, causing an increase of Rs. 2,108, but nothing additional has been imposed on wells sunk during the period of the lease, while land watered from old wells has been assessed within the highest dry-crop rate.

The rice land in the Táluka amounts to only fifty-five acres, and has been assessed at a maximum of Rs. 6. The general result of the revision has been an increase of the Government revenue by Rs. 15,382, from Rs. 59,775 to Rs. 75,157, or 25·7 per cent.

This increase, considering the high saleable value that land has acquired, is certainly moderate. Although in the three years preceding the settlement there were 333 notices issued of sale of occupancy rights for non-payment of revenue, in no case was distraint actually resorted to, and the demands of the State have been easily and punctually met. In a hundred cases of actual sales of land for the last five years of the old settlement 2,005 acres fetched Rs. 15,710, or twenty-seven times the assessment. In the same number of cases of mortgage of land without possession being given 1,845 acres realised on an average nineteen times the Government valuation, and in a similar number of mortgages with possession 16,000 acres went for eighteen times. In the case of leases the sums for which lands were sublet occasionally amounted to twenty-five times the Government rental. It is, moreover, indicative of the generally prosperous condition of the people that 75·6 of the total Survey numbers are cultivated by the holders themselves, and 21·2 are sublet either on money or produce rents.

The fifty-five villages of Khatáo are similarly circumstanced to those of Mán, and lie to the south-west of the latter. Twenty-four of them were settled when they formed a portion of the Táluka of Khánápur, which lies to the south of Khatáo.

Remeasurement on account of mistakes in excess of 15 per cent. in the old Survey was found necessary in only ten numbers, and changes from the action of floods, new roads, &c., led to revision in 190 more out of a total of 14,605. Classification of soils was re-done in 7·9 per cent. of the total number. The difference in area between the old and new measurements was found to be only 446 acres, or ·02 per cent. of the whole.

The soil is superior in general to that of Mán, but some of it is of poor quality. It is intersected through its entire length by the river Yerla, which is largely made use of for irrigation in the valleys, where the soil is deep and rich. Other streams, many of which are flowing till the middle of the hot season in April, have

been similarly made available, and in the course of the Survey lease the area devoted to garden produce has been extended by 3,678 acres, or 55·8 per cent. With the exception of the most south-easterly portion, Khatáo, being nearer the Gháts, is more favourably situated than Mán with regard to rainfall and facilities for irrigation.

The railway does not run through any portion of the Táluka, although it is within easy reach of the western villages; but it is well supplied with roads, and has several markets for the disposal of surplus produce either within or close to its limits. It has the advantage over Mán, also, of being able to produce more wheat, which is an article of export. These circumstances, together with its prosperous condition, as shown by the following statistics, have led to the imposition of somewhat higher rates of assessment than noted above in the case of Mán.

The evil effects of the famine of 1877 having been comparatively less felt, its population has increased by 30·2, and a higher standard of comfort among them is shown by the fact of a decrease of 31·5 per cent. in the number of thatched houses, while houses of a superior kind have increased by 33·6. There are 2,274 more agricultural cattle, while milch and young cattle have hardly decreased in number, and sheep and goats have multiplied by over 25 per cent. The number of carts has risen from 377 to 1,250, and that of wells and water-lifts from 1,584 to 2,729, or 72·3 per cent. The effect of the last item of increase is shown in the greatly extended area of garden lands mentioned above.

The proportion of land sublet on cash and kind rents by the Survey occupants is 28·5 per cent., as compared with 21·2 in Mán.

In the three years preceding revision there had been no cases of sale of occupancy rights for the realisation of revenue, and in the whole period of the Survey lease remissions of demand have been insignificant, except in the famine year, and one or two following it, when the people were in a depressed condition. Registration returns prove that land has acquired a substantial saleable value. In a hundred cases of lease the rent realised was from five to twenty-five times the Government assessment, and in 200 cases of mortgage Rs. 28,239 were advanced on the security of 1,787 acres of land.

The area of assessed land still unoccupied comes to about 5,705 acres. Its average assessment of 4a. 4p. an acre shows that it is of the poorest description, fit only for pasturage. This is probably the cause of the large number of sheep and goats shown in the returns. Little change has been made in the grouping of villages for maximum rates of dry-crop assessment. Climatic considerations remaining the same for all, the more westerly villages have benefited most from improved means of communication. The original first and second groups have been amalgamated, and their old maximum rates of R. 1 14a. and R. 1 10a. have been raised to one uniform rate of Rs. 2 4a. For the new second group, the old maximum of Rs. 1½ (in one case R. 1 6a.) has been brought up to Rs. 2, and in the third, originally the fourth, from R. 1 6a. to R. 1 12a.

Rice land, of which there are only thirty-three acres, has been assessed for combined soil and water at an average of Rs. 3 5p. per acre. At a maximum of Rs. 8 the new assessment comes to R. 1 3a. 4p. for land watered from wells, and to Rs. 4 9p. for what is irrigated from river channels. Land under old wells has been assessed within the highest dry-crop rates, and nothing extra has been taken from what is under new wells dug during the Survey lease. If the increase on account of new water cess leviable for water the supply of which is due to improvements carried out with State capital be deducted, the total increase of revenue under the revision amounts to 32.1 per cent. Considering the great rise in the value of agricultural produce since the first settlement was introduced, amounting on an average to 150 per cent., this increase is decidedly moderate.

It should be noted, in comparing the maximum in the two divisions of the old Táluka of Khatáo, that the third group of villages in Khatáo corresponds in position with the second of Mán, and that the third group in the former lies more to the east, in a zone in which the rainfall is more uncertain and less abundant.

Only a small portion of the original settlements in the Sattará Collectorate having as yet come under revision, no data are available on which to contrast the demands of the State on the land thirty years ago with those of the present time. As a whole,

Sattará has benefited greatly by improvements in the means of communication and in increased facilities for irrigation, and a moderate enhancement of those demands will not prove burdensome to the people in consequence of the great rise in value of agricultural produce, and may fairly be levied for the general benefit of the country.

BELGÁM (BELGAUM).

THE Belgám Collectorate lies between $15^{\circ} 23'$ and $16^{\circ} 58'$ N. lat. and $74^{\circ} 5'$ and $75^{\circ} 28'$ E. long. It contains an area of about 4,600 square miles, with an average population of 185 per square mile. It is bounded on the north by the Míraj and Jath States, on the east by those of Jamkhandi, Mudhol, Torgal, and Rámdurg, on the south by Dhárvár, North Kanara, and the Portuguese territory of Goa, and on the west by the States of Kolhápur and Sávantvádi. The villages of the Collectorate are much intermixed with those of the neighbouring Native States. It measures about 100 miles from north to south, and from 50 to 80 from east to west, and contains the seven subdivisions of Athni, Chikodi, Gokák, Parasgad, Sampgáon, Belgám, and Khánápur. The official language is Mahratti, but towards the south the vernacular is Kanarese.

By Bombay Regulation VII. of 1830 the portion of the Southern Mahratta country acquired from the Peshvá and other Native chiefs was formed into a district called the Dhárvár Collectorate. After the cession of Dhárvár and Kushgal, in June 1817, the city of Belgám itself was taken by Col. Munro, March 1818, and the fort in the following month. These operations, which followed his conquest of Bádámi and Bágalkot, completed the conquest of the Peshvá's territories south of the Krishna. On the 1st June of the same year the Peshvá ceded the Pargana of Pachhápur, or Pádshápur, and portions of others, and an acquisition came from the seizure of a portion of the territory of the Nipáni Desai, who had sided against the English in the war.

Mr. Chaplin, Collector of Belári (Bellary), was appointed, under Mr. Elphinstone, Principal Collector of the Mahratta country south of the Krishna, with political powers in the territory of Kolhápur and in those of the Southern Mahratta Jágirdárs. On

Mr. Elphinstone becoming Governor of Bombay, Mr. Chaplin succeeded him as Commissioner of the conquered country. The administration of the Karnátak (Carnatic), which comprised the present Collectorate of Belgám, Dhárvár, and Bījápur, remained under him until the Commissionership in the Deccan was abolished in 1826.

The general state of revenue matters in the Karnátak on the introduction of British rule, and the steps taken to introduce order, will be found under the head of the Dhárvár Collectorate. The first mention of any separate land revenue from the Karnátak is given in Despatches to the Court of Directors of the 23rd Feb. and 27th Nov. 1822, as having amounted for the period from the 1st Nov. 1819, when Mr. Chaplin became Commissioner, to the 30th April 1820, to Rs. 21,92,646, and for 1820-21 to Rs. 21,31,582, the diminution being caused by the nominal transfer of the *sayer* revenue (liquor, &c.) to another head of account.

Belgám was divided from Dhárvár and made into a separate Collectorate in 1836. It then consisted of the subdivisions of Parasgad, Sampgáon, Pádshápur, Chikodi, Bágalkot, Indí, Mudebihál, Hungund, Bádámi, and Bídí. The land revenue for 1835-36 was reported to be Rs. 11,32,218.

In about 1838 an assessment at increased rates appears to have been introduced by the Collector, Mr. Bazett, into Indí and Mudebihál. Objections were raised to this by Government on the grounds that on account of a fall in the value of grain a reduction of assessment appeared to be necessary, and that as no boundary marks were put up an annual measurement would apparently be required to ascertain what land was contained in every man's holding. Moreover, nothing definite had been laid before Government to enable them to decide on the propriety of the measure. A settlement in a few selected villages was authorised, to be undertaken by the assistants to the Collector, so that Government might form a judgment as to the necessity for some general measure. At the same time the prevalent custom of native functionaries lowering rates of assessment on their own authority was ordered to be put a stop to. The issue of *kíols* (leases) for the cultivation of waste lands was authorised for longer terms of years than had been customary, but in the following year the grant of any leases

pending the introduction of the Revenue Survey, then in contemplation, was prohibited. Another objectionable practice, viz., that of subordinate officers of Government ousting cultivators when higher rates than they paid for their lands were offered by others, was prohibited in the same year. Sundry objectionable taxes, together with town duties in Belgám and Gokák, were also abolished.

The Survey settlements were introduced from 1845 onwards into some parts of this Collectorate which now form a part of Bījápur. These were the subdivisions of Múdebihál, Bádámi, Bágalkot, and Hungund, the details relating to which appear under the head of the latter Collectorate. Of those still belonging to Belgám the first revised was the subdivision of Parasgad in 1849-50.

PARASGAD.

In reporting on the revision, Capt. Wingate stated that this subdivision had prospered under the Anagundee rule, but the whole of the Mahomedan and Mahratta time had been a period of misrule, occasionally relieved by the free granting of leases. In forty villages, out of the total number of 108 in the subdivision, which came under British management in 1817-18, the assessment was revised by Mr. Thackeray, the first Collector. Owing to the exaggerated estimate of the value of land formed from the *cháli* system of the Mahrattas, in which some lands were assessed very highly in consequence of being held conjointly with others assessed at very low rates or paying nothing, Mr. Thackeray's rates were fixed too high, and, prices having fallen, were found incapable of realisation. They had been arbitrarily reduced from time to time till they had been almost entirely abrogated.

In 1842-43 a more systematic reduction was made, and all rates above Rs. 3 and Rs. 2 were reduced to those figures, those below Rs. 2 remaining as they stood.

With the exception of the measurement in acres of the fifty-six villages received from Kohlápur in 1827-28, no step towards a reform of the revenue system had been taken in the remainder of the villages. In these no measurement even had been attempted.

The cultivation diagram forwarded with the Report showed that the area in cultivation had been 88,957 acres in 1828-29, and had fallen to 58,902 acres in 1845-46, a loss of more than half in seventeen years. Within the last three years there had been a large increase, in anticipation of the introduction of the new settlement. By degrees the levels of cultivation and assessment, as seen in the diagrams, had approached each other, on account of the most heavily assessed lands being thrown out of cultivation. The average of 1828-29 had been R. 1 6a. 7p. per acre, and in 1845-46 had fallen to R. 1 1a. 11p. The assessment had also been very uneven.

In the forty villages assessed by Mr. Thackeray, 49 per cent. of the land had gone out of cultivation, and the old average of Rs. 2 5a. 3p. had fallen to R. 1 12a. 7p., proving that the most heavily assessed land had become waste.

The rates lately introduced into Navalgund, which lay near to Parasgad, ranged from a maximum of R. 1 5a. to R. 1 2a., and had proved so successful that in three out of ten villages to which they had been applied the whole arable area had been taken up, and the same would probably be the case with the others in a few years.

The following statement shows the result of the settlement in the ten villages alluded to:—

	Waste.	Cul-	Assessment.	Re-	Col-
	Acres.	tivated.	on Cultivation.	missions.	lections.
Before Settlement—	Acres.	Acres.	Rs.	Rs.	Rs.
1843-44 . . .	12,291	13,694	19,831	3,612	16,219
After Settlement—					
1844-45 . . .	11,201	17,716	16,164	1,682	14,482
1845-46 . . .	11,800	20,395	18,072	8,262	9,809*
1846-47 . . .	5,943	27,080	23,341	37	23,304
1847-48 . . .	3,355	29,925	25,776	—	25,776
1848-49 . . .	3,503	30,628	26,498	68	26,430

* Bad year.

Deducting from the last figure Rs. 4,000 for resumed alienations, there still remained about Rs. 6,000 in excess of that of 1843-44.

The 108 villages were arranged for maximum rates of dry-crop assessment in five groups. The sixteen first class villages, for which a maximum of R. 1 9a. was proposed, lay in the plain along the borders of Sampgáon and Dhárvár, and had a climate favourable to dry-crop tillage and good markets for the disposal of

produce. The second group, of twenty-seven villages, lay to the north and east of the first, with not so good a climate and the same markets. Its rate was R. 1 6a. The climate and market facilities of the third group, of thirty-three villages, lying partly in the plain to the east of the second and partly along the hills as far as the borders of Gokák, were not so favourable, and its maximum was fixed at R. 1 4a. The sixteen villages of the fourth group, rated at a maximum of R. 1 2a., lay in the extreme east. They had a scanty rainfall, and were at a distance from markets. The sixteen of the fifth group, assessed at R. 1, lay in the extreme north-east, and were the most unfavourably situated of all.

The average dry-crop rate in the several groups was as follows:—

	R.	a.	p.
First group . . .	1	2	3
Second group . . .	0	15	4
Third group . . .	0	11	6
Fourth group . . .	0	10	9
Fifth group . . .	0	6	9

There were no rice lands, and only 350 acres of garden lands watered from wells. The old average had varied from Rs. 11 14a. 3p. to 5a. 1p. At the Survey maximum of Rs. 5, the new average rate came to Rs. 2 $\frac{1}{4}$. The new rates raised the total rental from Rs. 69,786 to Rs. 70,814, or about 1 per cent. over the average collections of the five past years. As compared with the previous year's revenue, there would be a reduction of about Rs. 14,500.

The following are the details:—

Class.	Villages.	1841 to 1846.		Survey.					
		Cultivation.		Cultivation.		Waste.		Total.	
		Area.	Collectns.	Area.	Rental.	Area.	Rental.	Area.	Rental.
		Acres.	Rs.	Acres.	Rs.	Acres.	Rs.	Acres.	Rs.
1	16	14,116	23,088	20,310	23,166	2,888	3,083	23,193	26,199
2	27	15,087	17,710	18,724	17,044	9,021	7,564	27,745	25,508
3	33	17,861	16,334	21,471	15,432	14,256	9,578	35,727	25,010
4	16	10,321	6,772	11,266	7,569	6,033	2,922	17,299	10,491
5	16	15,095	8,882	15,890	6,703	4,317	1,214	20,207	7,917
	108	72,480	69,786	87,661	70,814	36,510	24,311	124,171	95,125

GOKAK.

A revised settlement was introduced into the subdivision of Gokák, which lay to the north-west of Parasgad, in the same year. On the south and west it had a range of sandstone hills, while to the north and east it was open and fairly level. On and to the west of the hills the rainfall was often too heavy for dry-crop cultivation, while to the east it was so doubtful as to give rise to a local saying that a good monsoon came only once in twelve years. In addition to the Yádvád petty division, Gokák contained forty-seven Government and twenty-three alienated villages; of the latter one was rent-free and the others paid a quit-rent.

With the exception of that in the valley of the Ghatprabha river, which ran nearly through the centre, the soil was generally poor; in the valley it became a fair black. The husbandry was slovenly, many of the fields being but half tilled. This was due, in Captain Wingate's opinion, to poverty, arising from an irregular revenue system, as well as to a precarious climate and poor soil. Field produce was hardly exported at all, owing to the local consumption at Gokák, where about 6,000 people lived by the manufacture, dyeing, and printing of cotton fabrics. A few of the eastern villages had markets in Mahálingpur and Rabkavi, two manufacturing towns in the neighbouring Mudhol and Patvardhan *jágír* estates.

The subdivision had lapsed to Government in 1836, and had been managed, although on the native system, with unusual liberality, on *ukti* and *káol* leases. Under the Patvardhans, who had held it on lease for fifty-six years, almost each village had its own variety of land measure. Shortly after British rule began, the accounts were ordered to be kept in *kurgis*, a *kurgi* being the area a two-bullock drill plough could sow in a day, but this was so roughly done that the *kurgis* varied from one to thirty acres, the average in different villages varying from $3\frac{1}{2}$ to $17\frac{1}{2}$ acres; for the whole subdivision the average was $6\frac{1}{2}$ acres. This made the concealment of cultivation a matter of comparative ease, and it was impossible for the superior revenue officers to regulate or even understand the assessment.

In the thirteen years ending with 1848-49 the nominal area of tillage had fallen from 55,873 to 47,913 acres, and the revenue

for collection had risen from Rs. 23,680 to Rs. 29,752, or 25½ per cent. On the whole the country seemed to have suffered more from uneven and faulty than from too heavy assessment. For the Survey settlement the villages were divided for dry-crop maximum rates into six groups. The first, of three villages in the extreme west above the hills, had an ample rainfall for dry-crop tillage, and was given a maximum of Rs. 1 12a. The second consisted of Gokák itself and one village above the hills; the rainfall was more uncertain in the former, but proximity to market made up the difference; the rate here was R. 1 8a. The third group, with a maximum of R. 1 4a., contained eight villages along the east of the range of hills, and the fourth eight more in the east and north, both with an uncertain rainfall; the maximum here was R. 1 2a.

The fourteen villages of the fifth and twelve of the sixth, lay still farther to the east and north, with a very uncertain rainfall, and were distant from markets; the maximum in these fell to R. 1 and 14a. Some of the dry-crop lands in the Ghatprabha valley, known as *madi* land, had an extra qualification of one quarter or one-eighth put upon them on account of the benefit they derived from freshes in the river during the monsoon. There were only 266 acres of garden land; the maximum proposed for this was Rs. 5, which gave an average rate of Rs. 2½. The general effect of the settlement was a reduction of the rental from Rs. 30,330 to Rs. 23,760, or 21·6 per cent., and of the average rate from 9a. 6p. to 7a. 8p.

The following statement shows the details:—

Class and Villages.	1839-40.		Survey.					
	Area.	Rental.	Cultivated.		Waste.		Total.	
			Area.	Rental.	Area.	Rental.	Area.	Rental.
1.—3	Acres.	Rs.	Acres.	Rs.	Acres.	Rs.	Acres.	Rs.
2.—2	2,806	5,594	3,052	3,052	157	157	3,209	3,209
3.—2	2,448	2,128	2,288	1,680	880	508	3,118	2,186
3.—8	7,384	4,276	7,562	4,135	2,323	1,307	9,885	5,442
4.—8	8,212	6,403	7,727	4,669	5,170	3,231	12,897	7,900
5.—14	13,066	5,267	12,107	5,360	10,464	4,414	22,571	9,774
6.—12	17,153	6,671	15,087	4,868	6,743	2,001	21,830	6,869
47	51,064	30,334	47,823	23,764	25,687	11,618	73,510	35,380

YADVAD.

Experimental rates were introduced into Yádvád in 1851-52, and finally sanctioned in 1855. This lay to the north-east of Gokák, and had lapsed in 1848 on the death without heirs of Parashrá́m Bháo, of Tasgáon. Of the nineteen villages only ten were under Government management, and the settlement applied only to these. Most of the soil was black, but it was poor, stony, and shallow, particularly in the north. The rainfall was very uncertain, and although there were several fair markets for the disposal of produce, the condition of the people was not prosperous, through mismanagement during the later years of Parashrá́m Bháo's life. Owing to this, remissions granted did not reach the people, and large balances were found outstanding when British rule was introduced. One maximum dry-crop rate, the same as the lowest in Gokák, viz. 14a., was proposed for all the villages, which gave an average rate of 8a. There was only one Government field under garden cultivation, which was assessed at Rs. 1½ the acre:—

The result was as follows:—

Ten villages. Old Rent on Cultivation, 7,669 Rs. Cultivated: Area, 13,202 acres; Rental, Rs. 6,593. Waste: Area, 5,296 acres; Rental, Rs. 2,431. Total: Area, 18,498 acres; Rental, Rs. 9,024.

During the twelve years ending in 1862-63 the cultivated area rose from 13,202 acres to 21,380, or 61·2 per cent., and the revenue in the same period from Rs. 8,904 to Rs. 12,732, or nearly 43 per cent.

ATHNI.

Athni, the most northerly subdivision, was also settled in 1855 after experimental rates had been introduced in 1851-52. The first settlement extended to only fifty-three villages, which had all belonged to different estates that had lapsed to Government; sixteen were under a Mahálkari at Galgali, and the remainder under the Mámlatdár at Athni.

The soil was generally poor and shallow, except in the valley of the Krishna and other smaller streams. The rainfall was very uncertain, especially in the east, where the people and tillage were miserably poor. Athni was the chief market, but some of the people in the south took their produce to Rabkavi, in the Sāngli territory. The people of the Mahālkari's charge had the small market of Galgali, and within a convenient distance the large towns of Mudhol and Jamkhandi: thus the southern portion was better situated in this respect than the northern and north-eastern. Although there were no made roads, the country was open enough for traffic in the fair season.

For two years after the Peshvá's fall Athni was under British management, and was then handed over to the charge of the Nipáni Desai, on whose death, in 1839, it lapsed. The existing land measures and rates had been continued. Although under the native system the assessment on the better classes of soil had been high, reductions were often made under the name of *khand-totá*, or by adding to holdings land either lowly assessed or rent-free. Outstanding balances were held in *terrorem* over the people's heads to force them to keep up the area of cultivation, and from the intimate knowledge possessed of the means of every man a large revenue was screwed out of the country.

Progress under such a system was, of course, impossible. Between 1839-40 and 1850-51 the area of tillage fell from 1,21,930 acres to 92,369, and collections from Rs. 52,573 to Rs. 37,419. In the five years ending in 1850-51 cultivation fell in twenty-three villages near Galgali and some to the west of the hilly tract from 42,172 to 35,673 acres (15 per cent.), and collections from Rs. 26,920 to Rs. 24,400 (9 per cent). In both cases the annual remissions had also greatly diminished. For maximum dry-crop rates of 14a. and 12a. the fifty-three villages were put into two groups of twenty-three and thirty villages respectively. The former were near Galgali, or to the west of the hills, and the latter to the east of the hilly tract, with an uncertain rainfall and poor markets. The average in the two classes came to 8a. 1p. and 5a. 8p. Of 583 acres of garden land one-fourth was in Athni alone, and the rest in the eastern villages; they were watered from dug wells or water-lifts from streams. The old average rate

was R. 1 5a. 6p., and the Survey maximum of R. 1 12a. gave one of R. 1 4a. 3p.

The general effect of the settlement was to reduce the assessment from Rs. 62,654 to Rs. 47,334, or 24 per cent., as shown below :—

Classes and Villages.	Old Rates on Cultivation.	Survey.					
		Cultivation.		Waste.		Total.	
		Area.	Rent.	Area.	Rent.	Area.	Rent.
	Rs.	Acres.	Rs.	Acres.	Rs.	Acres.	Rs.
1.—23	26,799	38,464	19,145	25,192	10,637	63,656	30,085
2.—30	35,855	78,530	27,886	62,549	16,286	141,079	44,172
53	62,654	116,994	47,334	87,741	26,923	204,735	74,257

Between 1853-54 and 1862-63 the area under cultivation rose from 130,684 to 177,643 acres, and the collections, inclusive of quit-rents, from Rs. 67,206 to Rs. 85,467.

Into the remaining twenty-one villages of Athni a settlement was introduced in 1852-53, and sanctioned in 1857. They formed the western portion of the Mámlatdár's charge, and were much intermixed with villages of Sàngli, Míraj, and other estates. They all lay on the north or left bank of the Krishna, and almost all to the east of a range of hills which ran north and south to the east of Tásgáon. Most of the country to the east of the hills was barren, with occasional patches of rich soil. In the plain of the Krishna alone there was deep alluvial soil. The rainfall was scanty and uncertain. The people were generally poor, with few manufacturers among them, and cultivation was slovenly. Athni was the only market of any consequence.

Of the twenty-one villages, ten had belonged to Nipání, which lapsed in 1839-40; the rest were acquired subsequently by lapse or transfer.

Between 1844-45 and 1851-52 the tillage area in sixteen villages had increased from 20,660 to 22,801 acres, and the collections from Rs. 13,957 to Rs. 15,202. For maximum rates of dry-crop assessment six classes of villages were proposed, with varying rates

from R. 1 12a. to 14a., according to climate and distance from market. In the sixth, which consisted of thirteen villages, the maximum of 14a. was the same as that of the twenty-three villages of the first Athni group mentioned above, both being similarly situated, but gave a lower average rate of 6a. 2p. There were 893 acres of garden land under wells and water-lifts from streams. The rates proposed for these lands varied from Rs. 4 2a. to 8a., and averaged Rs. 2 3a. 6p. The total rental was reduced from Rs. 20,061 to Rs. 19,020, or 5 per cent., as follows :—

Classes and Villages.	Former Rental on Tillage.	Survey.						
		Cultivation.			Waste.		Total.	
		Area.	Rental.	Average Rate per Acre.	Area.	Rental.	Area.	Rental.
	Rs.	Acres.	Rs.	Rs. a. p.	Acres.	Rs.	Acres.	Rs.
1.— 2	7,337	2,868	4,690	1 10 2	90	101	2,958	4,791
2.— 3	7,574	9,179	6,411	11 2	1,657	977	10,836	7,388
3.— 1	462	832	378	7 2	72	12	904	390
4.— 1	812	1,084	542	8 5	1,331	580	2,365	1,122
5.— 1	463	1,589	464	4 8	154	33	1,743	497
6.— 13	3,413	16,965	6,537	6 2	7,660	2,263	24,625	8,805
21	20,061	32,467	19,022	8 10	10,964	3,971	43,431	22,993

During the thirteen years ending in 1864–65 the area under cultivation in these villages rose from 32,467 to 42,749 acres (81·6 per cent.), and the collections from Rs. 17,110 to Rs. 26,060 (52·3 per cent.).

SAMPGAON.

The subdivision of Sampgaon was next revised, the new rates being introduced in 1852–53, and finally sanctioned in 1857. It contained 106 entire Government villages, and the revenues of three others were shared. The river Malprabha ran through it from east to west, and the soil in its valley was very rich. In the

west it was hilly, and the country sloped to the east until it merged into the great cotton-soil plain to which the eastern half of the subdivision belonged. On the north and north-west, where the sandstone hills of Gokák were prolonged into it, the climate was very good, from its proximity to the western hills, the rainfall both in the early and late rains being ample and certain. The fields were well tilled, and the use of manure was general. Cotton was only produced for local consumption, and in the west sugarcane and considerable quantities of rice were grown. Both within and without the limits of the subdivision there were numerous markets, and communication with the market of Belgám by the Kaládgi road was easy. In the villages north of the Malprabha there were about 5,000 weavers, who produced coarse cotton cloths. It had formed part of the Kittúr Desai's estate, which lapsed to Government in 1824. During the Desai's rule the gross revenue of villages was exaggerated or diminished to suit the purpose of the moment, and the administration was notoriously corrupt.

In 1825-26 the subdivision was surveyed, but the old rates were almost universally continued.

During the twenty-six years ending in 1851-52 the area of cultivation rose 9·8 per cent., and the collections 13 per cent. For maximum dry-crop rates the villages were nominally divided into eight groups, but there were really only four maximum rates of Rs. 2½, Rs. 2, Rs. 1½, and Rs. 1¼. They were arranged according to their greater or more uncertain rainfall and accessibility to markets. Of rice land there was an area of 3,974 acres, for which a maximum rate of Rs. 8 gave an average of Rs. 8 9a. 6p. One market town on the Dhárvár and Belgám road had a maximum of Rs. 9. Almost all the garden land, 1,304 acres, was in the northern portion, where the water was near the surface, and many streams flowed throughout the year, affording facilities for channel watering. On well-watered land the acre rate varied from Rs. 4½ to Rs. 2, and on channel-watered from Rs. 5 to Rs. 1½. The old rate had been between Rs. 4½ and Rs. 5. The general result in the villages, according to the Superintendent's grouping, was a fall in the rental from Rs. 1,44,480 to Rs. 1,22,770, or 15 per cent. as shown in the subjoined table:—

Classes.	Villages.	Old Rental on Cultiva- tion.	Survey.							
			Cultivation.			Waste.		Total.		
			Area.	Rental.	Avrge. Rate.	Area.	Rental.	Area.	Rental.	
1	7	Rs.	Acres.	Rs.	Rs. a. p.	Acres.	Rs.	Acres.	Rs.	
2	30	7,178	5,039	6,066	1 3 3	773	405	5,812	6,471	
3	7	32,677	24,624	30,935	1 4 1	8,257	5,297	32,881	36,232	
4	37	3,957	3,872	4,496	1 2 7	1,194	672	6,166	5,168	
5	11	71,016	39,945	58,633	1 7 6	4,900	4,342	44,745	62,975	
6	7	18,241	10,451	12,966	1 3 10	414	325	10,865	13,291	
7	4	7,129	6,903	6,021	13 11	1,674	682	8,577	6,708	
8	1	3,755	2,729	3,052	1 1 11	263	282	2,982	3,334	
		523	1,048	604	9 3	319	92	1,367	696	
	104	1,44,476	94,611	1,22,773	1 4 9	17,694	12,097	112,305	1,34,870	

In the thirteen years ending in 1864-65 the area of cultivation rose from 94,611 to 127,689 acres, or 34·6 per cent., and the revenue, inclusive of quit-rents, from Rs. 1,30,730 to Rs. 1,90,314, or 45·5 per cent.

PÁDSHÁPUR.

Nine of the villages in the Pádshápúr (Pachhápúr) subdivision had revised rates introduced in 1852-53. These were finally sanctioned in 1857. These villages all lay round the town of Belgám itself. The rainfall was generally too heavy for dry crops, but favourable for rice, and the soil remained so moist that a second crop of wheat, gram, or pulse was generally produced. The land was very well cultivated. Belgám, with its 30,000 inhabitants, and other towns in the neighbourhood, afforded good markets for the disposal of produce. The people were on the whole in good circumstances, though some had become involved in debt from holding on to heavily-assessed lands in the hope of better times. In Belgám and Khásbág, included in it, the average rate of Rs. 9 8a. had been excessive, but not in the remaining villages, although it was so in individual cases. Some of the rice rates were as high as Rs. 40, and in dry-crop and garden land they went up to Rs. 10 and Rs. 13. In the twenty-five years ending 1851-52 the cultivated area rose from 7,400 to 9,020 acres, and the collections from Rs. 24,086 to Rs. 25,352, or 5·2 per cent.

The nine villages were placed in two classes, one containing only Belgám and Khásbág, and the other the remaining seven. At a rice maximum of Rs. 12, and one for dry-crop of R. 1 10a., the average came in the first class to Rs. 5 4a. 1p., that under the old system having been Rs. 7 0a. 6p. In the seven villages the highest rice was Rs. 9, and dry-crop R. 1 6a. There were only 116 acres of garden land, of which fifty-six were alienated. The lands were all under wells but one acre, which was channel-watered. In these maximum rates, varying from Rs. 5½ to Rs. 2¼, gave an average of Rs. 3 15a. 5p. The whole rental was reduced from Rs. 25,887 to Rs. 20,781, or 19·7 per cent., as follows:—

Classes and Vil- lages.	Old Rent on Cul- tivation.	Survey.						Average per Acre on Cultiva- tion.
		Cultivation.		Waste.		Total.		
		Aren. Acres.	Rental. Rs.	Aren. Acres.	Rental. Rs.	Aren. Acres.	Rental. Rs.	
1.—2	13,425	2,802	8,895	2,417	2,956	5,219	11,851	3 2 10
—7	12,462	6,576	11,886	1,436	1,175	8,012	13,061	1 12 11
	25,887	9,378	20,781	3,853	4,131	13,231	24,912	2 3 6

In the thirteen years ending 1864–65 the area under tillage rose from 9,378 to 12,518 acres, or* 33·3 per cent., and the collections, inclusive of quit-rents, from Rs. 32,450 to Rs. 42,780, or nearly 32 per cent.

CHIKODI.

The subdivision of Chikodi, which contained 141 Government villages, had revised rates introduced in 1853–54, which were finally sanctioned in 1858 for the usual thirty years. The remaining sixty-seven villages in it were alienated. It had two well-marked natural divisions, the valley of the Ghatprabha and its feeder the Harankási in the south, and the valley of the Krishna with its feeder the Dudhgangá in the north. The two were separated by a steep-sided trap table-land, 300 to 400 feet above the valleys. The *mál* land in this tract was shallow and poor. In the

Krishna valley the black soil was rich. Except in some places, the lands in the south were sandy, and required constant manuring to maintain their fertility. The western villages had too much rain to admit of good dry crops being grown. The central tract had a certain and sufficient rainfall, and in the east it was often scanty and uncertain. There was a small non-agricultural population of about one-tenth of the whole.

The subdivision was well off for markets. In addition to Chikodi, which was a place of considerable trade, it had good communications with other market towns, and with the sea-coast by way of the Phonda Ghát. The husbandry was generally good, and the fields well tilled, and the land-holders were well to do.

A survey of the tract had been undertaken shortly after the introduction of British rule, the areas ascertained by which formed the basis of the accounts from 1833-34. From this date till 1844-45 there was a steady decrease of cultivation from 88,920 to 83,874 acres. After the latter year there was a steady increase, so that in the twenty years to 1852-53 it had risen by about 9·7 per cent. Collections in the twenty-six years ending at that time had increased from Rs. 1,07,727 to Rs. 1,12,011, or nearly 4 per cent.

By the Survey the 141 villages were arranged for maximum dry-crop rates in seven classes, according to the following table:—

Class.	Villages.	Maximum Dry-crop Rate. Rs. a.	Distinguishing Characteristics.
3	41	2 0	The western and north-western villages, with the best climate and best position for markets.
2	44	1 12	First, villages in the extreme west, where the rains are excessive; and second, villages to the east of the first class, and with a less favourable climate.
3	27	1 8	Villages to the eastward of the latter, and less favourably situated both as to climate and markets. This group contained most of the villages on the central table-land mentioned above.
4	10	1 4	Villages in the east, where the rainfall was somewhat deficient.

Class.	Villages.	Maximum Dry-crop rate. Rs. a.	Distinguishing Characteristics.
5	9	1 0	Villages quite to the east, where the rains were often scanty. They were also far from markets.
6	9	0 14	Villages among the hills to the south-west, where the rain was too heavy for superior dry crops.
7	1	0 12	An isolated village, eight miles beyond the boundary of the main body of the subdivision.

Rice land was met with to the extent of 2,473 acres, more or less, in fifty-one villages, but only 640 acres belonged to Government. Maximum rates of Rs. 8 and Rs. 7 were adopted respectively in the first and second, and in the sixth groups. There was garden cultivation of 5,622 acres, of which 2,685 were assessable by Government, the rest being alienated. The old rates had been as high as Rs. 10. The maximum now proposed was Rs. 6, which gave an average of Rs. 3 12a., as compared with a probable old average of Rs. 5 4a. 11p. The new rates on the whole brought down the revenue from Rs. 1,38,780 to Rs. 99,620, as shown below, a decrease of 28·2 per cent.

Class and Villages.	Old Rental on Tillage.	Survey.						Average per Acre on Cultivation.
		Cultivation.		Waste.		Total.		
		Area.	Rental.	Area.	Rental.	Area.	Rental.	
	Rs.	Acres.	Rs.	Acres.	Rs.	Acres.	Rs.	Rs. a. p.
1.—41	87,560	41,786	53,113	14,885	5,663	56,671	58,776	1 4 4
2.—44	27,793	24,682	22,043	6,908	2,695	31,590	24,738	14 3
3.—27	13,044	18,040	12,558	9,501	2,865	27,541	15,423	11 2
4.—10	2,513	4,253	2,769	2,613	739	6,865	3,508	10 5
5.—9	5,833	16,852	7,408	10,896	2,282	27,748	9,690	7 0
6.—9	1,467	1,881	1,331	1,210	356	3,091	1,687	11 4
7.—1	570	863	399	782	213	1,645	612	7 5
141	1,38,780	108,356	99,621	46,795	14,813	155,151	1,14,434	14 9

In the thirteen years ending in 1865-66 the area under tillage had increased from 107,356 to 170,719 acres, or 57 per cent. and the revenue from Rs. 1,30,135, inclusive of quit-rents, to Rs. 1,95,375, or 50 per cent.

ANKALGI.

Thirty-three and a half Government villages, of which all but two were in the petty division of Ankalgí in Pádshápúr, in 1853-54 had experimental rates introduced, which were sanctioned for thirty years in 1858. The half village was one managed by Government, but of which half the proceeds were paid over to the person who shared it.

The villages lay to the south-east of Chikodi, either in the valley of the Markándrya or on the sandstone hills which enclosed it. To the east, near Gokák, the rainfall was somewhat uncertain, and in the west too heavy for good dry crops; but most of the valley villages had good soil and generally excellent crops. Here the people were generally fairly well off, and almost all were agriculturists. The accessible markets were good, Belgám and Gokák being the chief, whilst Pádshápúr and Ankalgí were within the limits of the tract. The lands had been surveyed in the early years of British rule, and the measurements formed the basis of the revenue settlements from 1826-27, but the old assessment was not disturbed. It was unequal, but on the whole not excessive.

In the twenty-seven years ending in 1852-53 the cultivated area had extended from 7,097 to 8,481 acres, or 19·5 per cent., and the collections increased from Rs. 6,369 to Rs. 12,441, or 95·3 per cent.

The thirty-three Government villages were divided into four classes for maximum dry-crop rates of Rs. 2, R. 1 12a., R. 1 8a., and R. 1 4a. respectively. The first consisted of twenty-one villages in the centre of the tract of country, where the rainfall was certain and sufficient. The second, of eight villages, included villages on the Gokák frontier, where the rain was more uncertain than in the first, and in the west, where it was too heavy. The two in the third group were badly placed in the eastern hills, and the two in the fourth were in the extreme west, where the rains were so heavy that only the poorer grains could be cultivated. The maximum rate for rice land, of which nearly half was alienated, was Rs. 9, which gave an average of Rs. 3 14a. 1p. For

garden land, in 174 acres, of which 134 were alienated, the average rate came to Rs. 3 7a. 3p.

The general result of the revision was to reduce the rental from Rs. 16,834 to Rs. 12,530, or 25·5 per cent., as shown below :—

Classes and Villages.	Old Rent on Cultiva- tion.	Survey.						
		Cultivation.		Waste.		Total.		Average per Acre on Cul- tivation.
		Area.	Rental.	Area.	Rental.	Area.	Rental.	
		Rs. °	Acres.	Rs.	Acres.	Rs.	Acres.	
1.—21	12,700	8,377	9,139	1,245	761	9,622	9,900	1 1 5
— 8	3,647	2,436	2,712	1,089	885	3,525	3,597	1 1 10
3— 2	279	748	506	40	13	788	519	10 10
4.— 2	208	523	173	232	71	754	244	5 4
	16,834	12,083	12,530	2,606	1,730	14,639	14,260	1 0 7

During the thirteen years ending in 1865-66 the area under cultivation increased from 12,083 to 15,294 acres, or 26·5 per cent., and the collections, inclusive of quit-rents, &c., from Rs. 21,810 to Rs. 24,380, or 11·7 per cent.

BÍDÍ AND KITTÚR.

In 1853-54 the revision of assessment was commenced in the Bídí subdivision in forty villages of its petty division of Kittúr. Rates were then experimentally introduced, but not finally sanctioned till 1859. Round Kittúr itself the country was generally hilly. In the extreme south-west the rainfall was much heavier than to the east, and not suited to the dry-crop cultivation. In the east and in the Malprabha valley, in the more open country, there was good black soil, and good *javári* and other dry crops were raised. Except in the east, where dry-crop and rice were in about equal quantities, rice was the staple crop grown.

The people were well-to-do, and had a few manufacturers among them, and the high-road from Belgám to Dhárvár, running directly through the Mahál, gave them ready communication with

both those markets. The general assessment had not been very excessive, but was very unequal in its incidence; it was kept down by the low assessment on land allowed to be re-claimed from the forests at low rates, and newly-made rice lands, which paid only dry-crop rates. The plan of placing the whole assessment on the rice lands, and attaching a certain area of dry crop land to each rice field prevailed in some of the western villages. During the twenty-seven years ending in 1852-53 cultivation had increased from 19,627 to 25,012 acres, or 27·4 per cent., and the revenue from Rs. 34,748 to Rs. 38,651, or 11·2 per cent.

For dry-crop rates the villages were formed into three groups, of six, twenty-seven, and seven villages, with maximum rates of R. 1 10a., R. 1 6a., and R. 1 2a. The first consisted of Kittúr itself, with five other villages, with a rainfall not too heavy for dry-crop tillage; the second were in the centre, with heavier rain, not so well suited to such tillage; and the third among the hills to the west, where dry crops of the better kinds could not be raised. For rice lands a maximum of Rs. 8, as in Sampgáon, gave an average rate of Rs. 3 2a. There were only eighteen acres of garden land, on which the maximum was Rs. 4½, and the average Rs. 3 14a. The new rates caused a fall in the rental from Rs. 39,782 to Rs. 37,626, or 5·4 per cent.

The details are as follows:—

Class and Villages.	Old Rental on Cultivation.	Survey.						Average per Acre of Cultivation.
		Cultivation.		Waste.		Total.		
	Rs.	Aren. Acres.	Rental. Rs.	Aren. Acres.	Rental. Rs.	Aren. Acres.	Rental. Rs.	Rs. a. p.
1.— 6	8,626	5,119	8,200	1,814	1,602	6,933	9,802	1 9 11
2.—27	20,267	13,436	19,770	4,586	2,878	18,022	22,648	1 7 7
3.— 7	10,889	7,912	9,656	2,268	1,035	10,180	10,691	1 3 6
33	39,782	26,467	37,626	8,668	5,515	35,135	43,141	1 6 10

During the thirteen years ending in 1865-66 the area under cultivation rose from 26,467 to 35,985 acres or 35·9 per cent., and the revenue from Rs. 37,725 to Rs. 55,176, or 46·2 per cent. Remissions in the meanwhile had disappeared, and since 1857-58 had been nominal. In 1855-56 the western portion of Bídí,

close to the Sahyádrí range, was revised. It contained 123 villages, into which an experimental settlement had been introduced in the previous year. Rice was the staple crop, as the rain was too heavy for the better descriptions of dry crops.

The practice of cultivation by *kumri*, or wood-ash cultivation, had prevailed largely in Bídí, and although it was ordered to be put a stop to in 1854, the order was disregarded. A compromise was then made by which certain lands should be set aside in all the forest villages for this kind of tillage, and divided into blocks of twenty to thirty acres, assessed at 2a. the acre. These were to be cropped in portions in rotation, the land requiring six or seven years rest after two years' cropping. The inhabitants of the villages were poor, but those in the north had the advantage of being only fifteen miles from Belgám.

The average collections in the ten years ending in 1854-55 in the 123 villages, of which twenty-seven came into the hands of Government in the same year, were Rs. 15,480. The villages were placed in four groups, those nearest to Belgám with a sufficient rainfall for rice, thirteen in number, being in the first, with a maximum dry-crop rate of 14a. The other three groups, of thirty-nine, fifty-four, and seventeen villages, fell by 2a. a group in proceeding westwards. These reduced the rental by Rs. 1,173, or about 6 per cent., as shown below:—

Class.	Villages.	Collections of 1854-55.	Survey.				
			Cultiva- tion.	Waste.	Total.	Maximum per Acre.	
						Dry Crop.	Rice.
		Rs.	Rs.	Rs.	Rs.	a.	Rs. a.
1	13	4,485	5,784	2,568	8,352	14	7 0
2	39	6,078	7,199	2,326	9,525	12	6 0
3	54	6,836	4,604	3,418	8,022	10	4 8
4	17	1,903	542	1,022	1,564	8	4 0
	123	19,302	18,129	9,334	27,463	—	—

At the settlement all waste land of fair quality was at once taken up, and in the twenty-seven years ending 1881-82 the result was a rise in the area of cultivation from 19,009 to 42,842 acres, or 125 per cent., and an increase in collections from Rs. 20,474 to Rs. 30,523, or 49 per cent.

PÁDŠHÁPUR.

Revised rates were introduced into ten more Pádshápúr villages attached to the fort of Párgad, seven above and three at the foot or on the slopes of the Sahyádris, in 1856. In the two groups of these, of five villages each, the same dry-crop maximum of 7a. was proposed, and in rice Rs. 6 and Rs. 5 respectively.

The result was as follows:—

Villages.	Collections of 1854-55.	Survey†				
		Cultivation.	Waste.	Total.	Maximum.	
					Rice.	Dry Crop.
	Rs.	Rs.	Rs.	Rs.	Rs.	a.
5	1,158	1,035	412	1,447	6	7
5	989	798	223	1,021	5	7
10	2,097	1,833	635	2,468	—	—

KÁGVÁD JÁGR.

In 1860-61 a settlement was introduced into forty-nine villages of the Kágvád Jágr estate, which had lapsed in 1857-58, and guaranteed for only twenty-one years, so that it might terminate at the same time as other Survey leases in the neighbourhood. Twenty-seven of these villages stretched from Kágvád, about ten

miles south-east of Míraj, across the Krishna to below Yádvád, the Mahálkari's division of Gokák; the other twenty-two were in a compact group north-west of Belgám. The former were much scattered, and included every variety of the Belgám climate. The old rates were moderate, and were continued in force till 1860-61; there was, however, no certainty of tenure, as lands were let out to the highest bidder for them. The villages in the scattered group were formed into nominal groups with maximum dry-crop and other rates to correspond with those of neighbouring villages already settled, and the compact group into one with a maximum of 14a. The settlement raised the total rental from Rs. 61,266 to Rs. 66,773, or 8·9 per cent., as shown in the following statement :—

Class.	Vil- lages.	Old Rental on Cul- tivation.	Survey.			
			Rental on Cultivation.	On Waste.	Total.	Dry Crop Maximum.
		Rs.	Rs.	Rs.	Rs.	Rs. a.
1	2	13,298	11,120	188	11,308	2 0
2	1	6,365	7,556	150	7,706	1 12
3	5	12,839	12,645	330	12,975	1 6
4	3	3,395	3,629	130	3,759	1 2
5	10	8,227	12,345	702	13,047	1 0
6	6	6,624	7,257	35	7,292	14
	22*	10,518	12,221	560	12,781	14
	49	61,266	66,773	2,095	68,868	—

* Separate group.

This completed the first Survey settlement of the Collectorate; in 1880, on the expiration of the guaranteed period of thirty years, it came on for revision, and the first subdivision brought under review was that of Paragad, which had remained almost without territorial change. Its climate and soil have been already described, but other circumstances had changed. Prices had risen very considerably, that of *javári* being as 23 lbs. to 124, and that of *bájri* as 11 to 124. It had been fairly provided with local and trunk roads, some of which were only suited to fair-weather traffic.

The statistics of cultivation, &c., in the three decennial periods were as follows :—

Years.	Occupied.	Waste.	Collections.	Remissions.	Outstanding Balances.
	Acres.	Acres.	Rs.	Rs.	Rs.
1849-1859	122,932	30,750	97,030	735	3,954
1859-1869	165,737	1,104	1,17,157	—	—
1869-1879	162,373	6,513	1,20,026	163	2,081

There can be no doubt that the returns in the last of these periods were considerably affected by the severe famine year of 1876-77. This is further proved by the following figures. Population decreased from 71,860 to 60,969, or 15 per cent., notwithstanding that houses increased 10 per cent.; the number of carts rose from 560 to 2,123 (279 per cent.), and wells and water-lifts were more by 32 per cent., although the number of working cattle fell from 20,846 to 14,149, or 32 per cent. In the famine year balances remained outstanding to the amount of Rs. 15,427, although there had been only Rs. 27 since 1852-53. Garden cultivation had nearly doubled, perennial streams from the hills being made use of for irrigation, and the villages in the Malprabha valley availing themselves of its water by lift. The value of land had very much increased; it had sold between 1875 and 1878 at from twice to 133 times the assessment.

On an examination of the old classification it was found that the relative values of the superior and worst classes of soil had been too closely approximated, and in order to remedy this a partial dry-crop re-classification was carried out. All garden lands were also re-examined to ascertain changes in area and water-supply, but those under new wells had no additional assessment imposed on them, and those under old ones were lowered to the maximum dry-crop rates. Wells improved by percolation from Government reservoirs had double these rates imposed. The grouping of villages for maximum rates of dry-crop assessment was made, on the same general principles as at

the first settlement, in five groups, the highest being in the south-west, where the rainfall was best, and the lowest in the north and north-east, where it was the least certain. The rates were Rs. 2 2a., R. 1 12a., R. 1 8a., R. 1 5a., and R. 1 2a. respectively. Rice was assessed at an average rate of R. 2 14a. 4p., and well-watered garden land one of Rs. 2 11a. 11p.; channel-watered land had an average of Rs. 5 11a. from a maximum of Rs. 8. The total rise was from Rs. 1,20,669 to Rs. 1,69,867, or 40·7 per cent., as shown below :—

Class.	Villages.	Old Survey.	Revision Survey.						Increase per cent.
		Cultivation.	Cultivation.		Waste.		Total.		
			Area.	Rental.	Area.	Rental.	Area.	Rental.	
		Rs.	Acres.	Rs.	Acres.	Rs.	Acres.	Rs.	
1	18	36,585	34,094	55,007	74	34,144	55,171	50·6	
2	36	34,809	41,333	50,438	714	42,047	50,672	47·0	
3	29	26,497	38,986	35,110	1,265	39,505	35,505	32·6	
4	17	14,053	23,072	17,723	1,130	24,202	18,033	26·2	
5	15	9,225	28,002	11,469	1,701	29,703	11,701	24·3	
	100	1,20,669	165,487	1,69,867	4,860	1,215	170,347	1,71,082	40·8

It will be seen from this that the land still unoccupied was of the most inferior description, the assessment on which only averaged 4a. an acre, and was probably not worth cultivating. It has been shown above that the increase in the cultivated area in the thirty years had been nearly 40,000 acres. This is ample testimony to the general success of the Survey settlement.

GOKAK.

The revision of the settlement in the Gokak subdivision was sanctioned in 1881, but not carried out until 1883-84. The seventy villages had been settled at various times between 1849-50 and 1860-61, in the latter of which twelve of the Kágvád estate mentioned above had their assessments revised for a guaranteed period of twenty years. The climate and general character of the tract of country have already been described.

In the thirty years of the Survey lease the prices of *javári* and *bájri* had advanced respectively by 354 and 317 per cent., and that of wheat from 80 lbs. the rupee to 10 lbs. Whilst at the time of

the old settlement there had been only one road by which carts could cross the Sahyádris, there were now two other roads by the Ámboli and Phonda passes to Vengurla (Vingorla) and Devgad. Easy communication by the Belgám and Púna road had also been established with Belgám, Kaládgi, and other markets, and, with minor made roads, the whole country had been opened out for trade.

In the forty-seven old Gokák villages the increase in cultivation and revenue and decrease of remissions and outstanding balances had been as follows :—

Years.	Cultivation. Acres.	Waste. Acres.	Collections. Rs.	Remissions. Rs.	Out- standing. Rs.
1849-1859	65,103	17,683	46,714	479	1,966
1859-1869	83,690	2,187	45,507	5	—
1869-1879	86,273	1,500	46,095	53	1,795
1879-1880	81,012	7,281	44,322	—	—

The falling-off in the last decade was no doubt due to the famine of 1876-77. This is further proved, as in Parasgad, by houses having increased by 18·8 per cent., while population had fallen 9 per cent., and by farm cattle being fewer by 12 per cent., while carts had increased 408 per cent., and wells and water-lifts 128 per cent. With the exception of Rs. 493 given in the famine year, in which also Rs. 15,092 were allowed to remain outstanding, remissions since 1853-54 had been nominal. The people were fairly well off, and a considerable proportion of them were non-agricultural, employed in weaving and dyeing cotton fabrics. Sales of land were rare, and prices varied greatly. The tillage of garden lands was careful, but that of dry-crop often careless. As elsewhere, it was found that the first classification had been faulty in too closely assimilating the relative values of superior and inferior soils, and both re-measurement and re-classification were carried out in a larger proportion than usual.

The general grouping of villages in the whole subdivision for maximum rates of dry-crop assessment was made on the same principles as at the first settlement, inclusively of the villages since acquired, according to climate and distance from markets. The maximum rates in the six groups were respectively Rs. 2. 2a., R. 1 12a., R. 1 8a., R. 1 5a., R. 1 3a., and R. 1. Irrigated lands were dealt with as in Parasgad. There were only nineteen acres

of channel-watered land, of which three were alienated. On these the average rate came to Rs. 3 7a. 6p., and in rice R. 1 10a.

The general result will be seen from the following statement:—

Class.	Vil- lages.	Old Survey.	Revision Settlement.						Increase per cent.
		On Tillage.	Cultivation.		Waste.		Total.		
			Area.	Rental.	Area.	Rental.	Area.	Rental.	
1	3	Rs. 4,564.	Acres. 4,510	Rs. 5,959	Acres. 173	Rs. 49	Acres. 4,683	Rs. 6,008	30.6
2	2	2,402.	3,211	2,860	534	287	3,745	3,147	19.1
3	10	8,722	17,865	11,491	1,073	310	18,938	11,801	31.7
4	12	9,452	18,887	12,076	1,891	643	20,708	12,719	27.8
5	23	23,800	53,004	28,134	5,102	1,698	58,106	29,832	18.2
6	20	19,160	41,737	23,812	1,551	492	43,288	24,304	24.3
	70	68,100	139,214	84,332	10,254	3,479	149,468	87,811	25.8

It will be seen from this that the still unoccupied lands, as in Parasgad, were of quite inferior quality, assessed at about 5a. 5p. an acre. The increase in cultivation in the thirty years had been about 16,000 acres.

The following statement shows what had been the general course of revenue, cultivation, &c. before and since the introduction of the first Survey settlement up to 1881-82. It shows that, but for the severe trial of the famine year of 1876-77, the increase of revenue would have been over 2½ lakhs of rupees. As it was, it came to about Rs. 2,11,000.

Year.	Government.				Alienated.	Total.	Out-standing.	No. of Settled Villages.
	Occupied.		Waste.					
	Rental.	Remis-sions.	Rental.	Grazing.	Quit-Rents.	For Col-lection.		
Before Survey:	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	
1844-45	6,37,730	28,908	—	18,864	2,30,957	8,60,652	18,722	—
1848-49	7,19,904	13,578	—	29,872	2,32,137	9,61,335	4,706	—
Survey:								
1849-50	6,75,123	19,945	—	29,664	2,25,112	9,09,954	21,524	154
1852-53	6,95,238	32,841	—	25,742	2,04,217	8,92,356	4,613	329
1863-64	8,11,740	27	27,281	17,844	2,35,098	10,64,655	733	504
1876-77	8,31,534	3,900	29,783	10,645	2,50,166	10,89,445	88,428	—
1878-79	8,30,310	—	35,341	8,729	2,52,206	10,91,245	9,944	—
1879-80	8,29,499	202	43,369	8,216	2,53,914	10,85,917	1,351	—
Revision:								
1880-81	8,67,940	—	—	12,160	2,52,185	11,32,285	790	107
1881-83	8,67,901	45,902	42,967	11,024	2,53,339	10,89,262	232	—

Quit-rents on alienated land, it will be observed, have formed a large item in the collections. The cultivation of these lands has kept pace with that of Government land, which speaks well for the generally prosperous condition of the people, the quit-rents being in many cases quite equal to the full assessment. The statement as a whole plainly indicates the success of the Survey settlements.

ATHNI—BÁGALKOT.

In 1884 proposals were submitted for the revision of the first Survey settlement in sixty-two villages of the present subdivision of Athni and fourteen in Bágalkot (Bijápúr), originally in the former, together with fifteen of the Kágvád estate and two of Tásgáon settled subsequently to the others. Of the whole seventy-nine villages, sixty-five constituted the new Athni subdivision and fourteen had been transferred to Bágalkot.

For the revision three villages were entirely re-measured, and in seventy-six a partial re-survey was made to break up old Survey fields of too large a size, to measure separately all existing occupancies, and entirely to divide alienated from Government land, with the result that 19,068 old were converted into 26,058 new Survey numbers. Classification was adjusted to the new method by which a greater difference than formerly was made in the relative valuation of superior and inferior descriptions of soil. 78,958 acres were actually re-classed, while 321,807 were adjusted. About 6,550 acres were added to arable and 8,500 deducted from unarable land.

Athni is the most northern portion of Belgám. It touches Chikodi and Gokák, but, with this exception, is surrounded and intermingled with villages of the Jamkhandí, Jath, Míraj, and other States. The main portion is an undulating plain of trap formation, comprising large treeless areas of poor *mál* land, varied with black soil, along the banks of *nullahs*, and changing into a level black-soil plain wherever it approaches the Krishna. The rainfall, which averages twenty-five inches, is unevenly distributed, favourable and tolerably certain in the west, and much

less so about Athni itself, and still less again to the eastward of that town. Manure is used to some extent for dry crops in the west. Cultivation as a rule is careful in the garden lands, but slovenly in the poorer descriptions of soil.

The only line of communication open all the year round is the road from Bījápur to Kolhápur. Other roads are open in the fair season. The East Deccan railway passing through Bījápur is, however, only twenty-five miles to the east of the most easterly villages of the subdivision, and the line from Púna to Belgám, which will pass through Míraj, will no doubt greatly benefit the western portion.

Athni is a town of considerable importance as a market, and with Sangli, Míraj, Kurandvád and other places at no great distance the whole subdivision may be said to be favourably placed for the disposal of surplus produce. The statistical returns of population, &c., in the thirty years of the Survey lease, show a substantial improvement in all respects save that of milch cattle and their young, in which a reduction was naturally to be looked for from the extension of cultivation and the contraction of the area left for pasture.

From 70,578 at the time of the first settlement, the population had risen in 1872 to 92,707, and in 1881, after the famine, it had fallen back to 78,006; in 1882-83 it had again advanced to 88,322, showing a rapid recovery. Houses had increased by 34·8 per cent., and agricultural cattle 30·5. The number of carts had risen from 133 to 1,767, and wells and water-lifts from streams by 732, or 82·4 per cent. That land had acquired a high value was proved both from the high prices, frequently more than twenty times the assessment, bid for it at auction sales, and the unusual stringency of the conditions imposed in many of the leases and mortgage deeds, the latter showing with what care all interests connected with the land were guarded.

It will be seen from the following statement that the low prices ruling from about 1880 to 1884 had reduced the average of the last ten years below that of the second period, but the rise in the value of the ordinary staples was still about 75 per cent. above that of the first period of eleven years, whilst in wheat and cotton, articles of export, the increase had been 100 per cent. and more.

In the fifty-three villages settled in 1851-52 the revenue rose from Rs. 37,780 rapidly and steadily, till in 1864-65, when the American war prices were at their highest, it reached Rs. 73,349. In the famine year, 1876-77, it stood at Rs. 74,575. Since then about 12,000 acres of poor soil, assessed at an average of only 2a. 7p. the acre, have fallen out of cultivation, and matters have returned to the state in which they were when the first rush for land came to an end. Such inferior land can naturally only be held when prices are very favourable. In the twenty-one villages of old Athni, and the fifteen Kágvád villages settled in 1860-61, much the same sequence of events occurred, viz. a rush for land whilst prices ruled high, then only slow progress, until an abrupt check was given by the famine, and the cultivated area fell off. This depression has now passed away, and a recovery set in. Taken as a whole, the results have been eminently favourable, and this is further confirmed by the fact that in the years 1880-81 to 1882-83, there were only three cases in which occupancy rights were sold for the recovery of arrears of revenue out of 396 in which notices for such sale were issued.

In grouping for maximum rates of dry-crop assessment six groups have been retained as before:—

First, for three villages on the bank of the Krishna, the most favourably situated for climate and markets, a rate of R. 2 2a.

Second, for two villages lying immediately on the east of the first, with a somewhat less favourable climate, a rate of R. 1 14a.

Third, for 9 villages forming a group on either side of the Krishna, to the east of the second and with a less favourable climate, a rate of R. 1 6a.

Fourth, for the town of Athni alone a special rate of R. 1 4a., or 4a. above that of the next group, on account of its large market.

Fifth, for forty-seven villages, thirty-five round Athni and twelve on the Krishna, west of Bágalkot, with a climate much inferior to that of the western villages, but having easy access to a large market, a rate of R. 1.

Sixth, for seventeen villages in the north-east of the subdivision, with a somewhat precarious rainfall, and not favourably situated for markets, a rate of 14a.

The rice area had increased from 3 to 138 acres; this it was proposed to assess at an average of R. 1 9a. 6p. per acre. The garden area, of 1,613 acres, assessed on an average at R. 1 13a. per acre, had increased to 3,196 acres, and would, under the instructions of Government, by which land under old wells was to have its assessment brought down to the highest dry-crop rates, have an average assessment of only R. 1 2a. 5p. per acre. The usual orders with regard to the non-taxation of improvements, and the imposition of percolation rates in lands situated under Government works of irrigation, were fully carried out.

The following statement shows the general result of the revised settlement:—

Class.	Villages.	Old Survey.		Revision Survey.								Increase per cent.
		Occupied Land.		Occupied.		Waste.		Total.				
		Area.	Rental.	Area.	Rental.	Area.	Rental.	Area.	Rental.			
		Acres.	Rs.	Acres.	Rs.	Acres.	Rs.	Acres.	Rs.			
1	3	7,453	12,952	7,709	14,131	90	13	7,799	14,144	9.1		
2	2	16,999	14,092	17,010	16,987	564	98	17,574	17,085	20.5		
3	9	29,937	20,387	30,188	23,545	664	232	30,852	23,777	40.0		
4	1	23,432	7,497	25,623	12,208	969	125	26,592	12,343	62.8		
5	47	87,598	43,111	88,452	56,939	1,064	296	89,516	57,225	32.1		
6	17	79,186	22,619	81,066	29,338	15,719	2,404	99,785	31,842	30.1		
	79	244,475	120,653	253,048	1,58,248	19,070	3,168	272,118	1,61,416	31.2		

The increase in group four, containing Athni alone, appears to have arisen from under-assessment at the first settlement, the average rate having been only 5a. 1p. The increase of 40 per cent. in the third group was due to one village having been placed at the former settlement much below its proper group. The average rates of the two settlements were respectively 7a. 11p., and 10a. The land still unoccupied was rated at no more than 2a. 8p. the acre, and may be said to be almost unfit for cultivation.

SAMPGAON.

In December, 1884, proposals were submitted for the revision of the Sampaon subdivision, and sanctioned in 1885 for intro-

duction in that year and levy in 1885-86. The partial re-measurement and re-classification system already described were adopted throughout in the 140 villages to be revised. 54,383 acres were re-classed, and the values of 189,316 acres re-adjusted, inclusive of all water rates for rice or channel-watered garden land. Sampgáon lies to the east and south-east of Belgám itself; on the south lies the Dhárvár Collectorate, on the east Parasgad, on the north Gokák, and on the west the Sángli State, and the Belgám and Khánápúr subdivisions. The river Malprabha divides it, running from west to east, into two nearly equal portions, there being much good black soil to the north, with late crops, while to the south the soil is lighter and bears mostly early crops. Numerous small streams, tributaries of the Malprabha, furnish the means for a good deal of irrigation. The climate is throughout favourable, in the centre and east for dry-crop cultivation, and in the west for rice. The average rainfall for ten years, inclusive of the famine year, in which eighteen inches fell, had been 32·4 at the time of revision.

The method of cultivation is on the whole careful, manure being stored up for the purpose. Irrigation is not made so much use of as it might be, the certain and ample rainfall doing away with the chief incentive to it. The road from Dhárvár to Púna passes through the western villages and that from Belgám to Kaládgi the northern; there are also other made roads, in addition to which the railway passes near the western boundary and has three stations, in addition to that of Belgám, within easy reach for the disposal of its produce. There is a considerable cotton weaving industry within the subdivision, and there are three principal and five smaller markets, so that in position, both in this respect and climate, the subdivision is well off.

During the currency of the Survey lease, population had increased by 14·1 per cent., houses by 23·1, agricultural cattle by 14·4, carts by 215·6 (1,588 to 5,010), and wells and water-lifts had nearly doubled in number. The only falling off in stock was in the matter of milch cattle and their young, which were less by 35·6 per cent. The proportion of working cattle, a pair to about eleven acres, was unusually high, owing, probably, to the large area of rice cultivation. That land had acquired a high saleable

value was inferred, more than from actual sales, from the evidence afforded by the conditions attached to mortgages, which proved that the better cultivation of land was the object of many of the loans raised on its security.

Returns of prices of produce in the local markets were not procurable to any useful extent, but those of Belgám itself, which is at no great distance, showed an increase of fully 100 per cent. over those of the ten years previous to the first settlement.

Taking the Sampgáon and Kittúr villages, which form the present subdivision, separately, it is found that in the 109 belonging to the former 4,000 acres were taken up in anticipation of the new settlement, and that the progress of cultivation and revenue from that time (1852-53) to 1877-78 had been uninterrupted for a single year. Revenue rose from Rs. 1,23,153 to Rs. 1,59,188, at first slowly, and then, as the poorer soils were reached, more gradually, and the unoccupied area fell from 17,694 to 3,694 acres. The revenue was at its highest during the famine. In consequence of the low prices which followed the famine there was a slight falling-off, and the revenue in 1882-83 was Rs. 1,59,002. In the thirty-one old Kittúr villages there has been the same result, the collections rising from Rs. 29,794 in 1853-54 to their highest, Rs. 35,420, in 1877-78, and the waste area having fallen from 7,235 to 1,982 acres. Remissions and outstanding balances have been nominal, and during the three years 1880-81 to 1882-83 not one sale of occupancy rights for the recovery of arrears of revenue took place in the 326 cases in which notices were issued.

The 109 villages of old Sampgáon were originally divided into two main groups, with the river for boundary, the climate of both being equally good, but the northern portion having easier access to the Belgám market. Twenty-one villages, with an inferior rainfall, formed a third group. The forty old Kittúr villages were also thrown into three groups. The new grouping proceeded on the same lines, but the approach of the railway had also to be taken into consideration. The old first group formed the new also, with the addition of one village, the maximum being raised from Rs. 2 4a. to Rs. 2 10a. It consists of thirty-seven villages, with two made roads giving easy access to Belgám and the railway.

The second new group, of fifty-seven villages, with a maximum dry-crop rate of Rs. 2 6a., comprised the whole of the old second group and seven others in the south-west, the position of which had been improved by the approach of the railway. The climate of both these groups is equally good. The new third group took in the fifteen villages of the old third, nine to the north and six to the south. Their climate was rather more uncertain than that of the first two groups, while the nine northern villages, although nearer the railway than the six southern, had some difficulty in internal communications. The maximum was raised from R. 1 12a. to Rs. 2 2a. In the fourth group were placed twenty-four of the old Kittúr villages along the Belgám and Dhárvár road, which had a climate too moist for good dry-crop cultivation. The old rates of R. 1 6a. and R. 1 10a. were raised to R. 1 14a. In the fifth group were seven villages near those of the fourth, in the south-west corner of the subdivision. Their position was much improved by the coming railway, although they were generally unfit for dry-crop cultivation, as those of the fourth. The original rate of R. 1 2a. was raised to R. 1 8a.

The area of Government land under rice cultivation at the first settlement was 11,200 acres, assessed at an average of Rs. 3 3a. 7p. an acre. This had increased to 13,129 acres, assessed at an average of Rs. 4 2a. 9p. The 940 original acres of garden land had increased to 1,302, to be assessed at Rs. 4 11a. 8p. in place of Rs. 3 8a. 9p. per acre. It was divided into well-watered and and channel-watered in the following proportions:—

	Acres.	Rs.	Average Rate.		
			Rs.	a.	p.
Well-watered (<i>motasthal</i>)	472	1,136	2	6	6
Channel-watered (<i>pátasthal</i>)	830	5,019	6	0	9
	1,302	6,155	4	11	8

The orders as to non-taxation of improvements were strictly carried out.

The general result of the revision will be seen from the following statement:—

Class.	Villages.	By Old Survey.		Revision Survey.						Increase per cent.
		Occupied Land.		Occupied Land.		Waste.		Total.		
		Area. Acres.	Rs.	Area. Acres.	Rs.	Area. Acres.	Rs.	Area. Acres.	Rs.	
1	37	50,152	72,024	50,583	90,466	603	418	51,186	90,884	25.6
2	57	61,921	70,794	62,186	87,652	5,156	2,876	67,342	90,528	23.8
3	15	17,593	16,222	17,680	20,464	530	232	18,210	20,696	26.1
4	24	18,404	23,977	18,590	33,318	1,559	1,218	20,149	34,536	38.9
5	7	10,121	11,337	10,111	16,066	904	408	11,015	17,074	47.0
	140	158,191	1,94,344	159,150	2,48,566	8,752	5,152	167,902	2,53,718	27.9

The increase in the last two groups being greater than that allowable by the Government Resolution of 1874, limiting the enhancement on any group to 33 per cent., an explanation was submitted to show that it had been brought about simply by the faultiness of the classification of water at the first settlement, and not by any increase of assessment rates, as the increase in the dry-crop assessment was not more than in other groups. The same reason was assigned for the increase in two villages exceeding the limit of enhancement of 66 per cent. fixed by the above-quoted Resolution in the case of single villages.

In sanctioning a departure in these instances from the limits laid down, Government directed that all increase in excess of 25 per cent. on a holding should be remitted for the first two years of the revised settlement; that all in excess of 50 per cent. should be foregone in the third and fourth years, and all above 75 per cent. in the fifth and sixth years, so that the cultivators might adjust themselves to the increased payment by degrees.

The unoccupied waste bore an average rate of 9a. 5p. per acre. On occupied land the new average came on the whole occupied area to R. 1 9a. as against R. 1 3a. 8p. under the old settlement, an increase of 5a. 4p. per acre.

* CHIKODI.

A revision of assessment was proposed in the Chikodi subdivision in 1886, and sanctioned in the same year with certain modifications in grouping, advocated by the Survey and Settle-

ment Commissioner and the ordinary Revenue authorities. The number of villages to be settled was 171, of which 163 were settled in 1853-54; seven others, alienated at the time of that settlement, lapsed at various times from 1855-56 to 1870-71, and were settled as they lapsed; and one, belonging to the old Athni Táluka, was settled in 1852-53. Two of these were entirely re-measured, and in the remainder the usual partial re-survey was carried out to meet the requirements of the existing circumstances of the holdings, as elsewhere. Similarly 110,149 acres were re-classified, and in 287,772 acres the old classification was either confirmed or adjusted in order to meet the most recent method of creating a wider interval than formerly between the values of superior and inferior descriptions of soil. 1,537 acres were added to dry-crop, and 7,876 acres reduced from the unarable and put on to the arable area.

The subdivision has the Sámglí State on the south, and Kolhápúr territory on the west and north; the latter and the subdivision of Gokák lie on the east. In the north there is much good black soil, as well as in the south in the valleys of the Ghatprabha and Harankási rivers. In the south and south-east corner there are the sandstone hills, with the soil in their neighbourhood impoverished by the wash from their surface, and the extensive tract between the valleys of the rivers in the north and south portions of the subdivision occupied by the table-land of trap formation described by Capt. Anderson in his Report of 1857. The rainfall at Chikodi in the years 1875 to 1885 averaged about 25½ inches, and is certain and sufficient in the western half, while in the eastern half of the subdivision it is lighter and somewhat precarious. The cultivation of the tract generally is good and careful. Manure, not being much needed in the black, is freely used in the lighter soils. There is a good deal of irrigation under wells, but that from streams is not made so much use of as it might be.

The high-road from Púna to Dhárván, passes through the entire western side of the subdivision, and there are various local roads all passable for eight months in the year. In addition to these the line of the West Deccan railway was about to skirt its eastern boundary, and have four stations easy of access. Communication

with the Ratnágiri ports is kept up by the Phonda Ghát. On the whole, therefore, the state of communications for articles of both import and export is favourable, and there seems every probability that prices will remain steady. The chief local markets are those at Nipáni, Sankeshvar, and Daddi, and there are weekly markets at Chikodi and other places. The tobacco of the northern and north-western villages is considered to be of good quality, and is largely exported, as are also chilies.

The density of the population, 294 to the square mile, is unusual for a tract like that of Chikodi, of which 95 per cent. of the area is dry-crop and unarable, and has only one town which can be called large. Manufactures are neither numerous nor important.

During the Survey lease the advance of the subdivision in various ways was considerable. Taking 153 Chikodi villages and the fourteen in Gokák separately, there had been an increase in the former in population of 38·2 per cent., in houses of 42·4, in agricultural cattle of 23·8, in carts of 581 (635 to 4,324), and in wells and water-lifts of 103 per cent. (2,401 to 4,874). In the fourteen Gokák villages the increases in the same respects were severally 21·8, 40·7, 21·1, 111·9 (118 to 250), and 77·9 per cent. (77 to 137). The proportion of working cattle to cultivation was remarkably high, viz., a pair of bullocks to every eleven acres. There were a large number of cases of sales, leases, and mortgages of land, showing in many ways the high value possessed by land in the subdivision.

The following is a record of the prices of the staple grains for four periods, one of eleven and the others of ten years each, in four of the chief bazaars. It shows that *javári* has risen some 38 per cent., *bájrí* 47 per cent., wheat 54, and rice 82 per cent., since the period before the first settlement:—

	Javári.	Cleaned Rice.	Bájrí.	Wheat.
Eleven years, 1843-44 to 1853-54 . . .	49	24	51	29
Ten years, 1854-55 to 1863-64 . . .	29	20	31	20
Ten years, 1864-65 to 1873-74 . . .	22	11	22	14
Ten years, 1874-75 to 1883-84 . . .	21	11	21	18

Prices in 1883-84 did not materially differ from those of the last period, and there was every probability that the railway would keep them steady and prevent serious fluctuations of more than a very temporary nature.

From the time of the first settlement both the main body of the Chikodi villages and the fourteen of Gokák have presented the same general features as far as revenue was concerned. Up to 1872-73, by which time all the better sorts of land had been absorbed, there was an almost unbroken rise in the occupied area, and a corresponding increase of revenue. After that year there was a gradual falling-off in consequence of low prices, until 1882-83, when it began to rise again.

In 1883-84 the waste area stood at 16,501 acres, assessed at Rs. 4,940, or 4a. 9p. an acre, showing that it was of very poor quality. The only remissions of any importance in the whole period were in the famine year, 1876-77.

At the first settlement the 140 villages of Chikodi were placed in seven groups for dry-crop assessment; the 171 at the revision were grouped in six, as follows:—

First group, forty-four villages in the west and north-west of the subdivision. On the recommendation of the Survey and Revenue Commissioners, a few of these villages were reduced to the second group by Government, from the doubt whether in the future, after the railway was in working, the heavy traffic on the Púna and Belgám road would still continue or would be diverted to the railway in the east. The maximum rate was placed at Rs. 2 6a. The group had the best climate and the best situation for markets.

Second group, sixty-nine villages, with a climate slightly inferior to those of the first, and not quite so well situated as regards markets. The maximum dry-crop rate was Rs. 2 2a.

Third group, maximum dry-crop rate R. 1 12a. These villages lay to the east of the second, and had a decidedly inferior climate. They were thirty in number.

Fourth group, maximum rate for dry-crop R. 1 8a. The eight villages lay three in the south-west and five in the east of the subdivision. The climate in the former and in the latter was too dry for good dry-crop cultivation. Two villages were retained in

this group, which the Survey Commissioner proposed to raise one class.

Fifth group, ten villages in the east, where the rainfall was frequently scanty. The proposed maximum was R. 1 2a.

Sixth group, nine villages in the south-west corner, where dry-crop cultivation was confined to inferior grains owing to excessive moisture.

The rice water maximum was placed at Rs. 7 in the last and Rs. 8 in the remaining groups. Rice cultivation had risen from 1,005 to 1,333 acres. The old average was Rs. 2 6a. 9p., and the proposed new average Rs. 3 4a. 5p. The area of garden land had increased from 3,132 to 7,636 acres.

The average would be as follows according to the new proposals, no improvements being taxed :—

	Acres.	Assessment. Rs.	Average. Ra. a. p.
Well-watered . .	5,852	12,772	2 5 8
Channel-watered . .	1,784	9,678	5 6 10
	<u>7,636</u>	<u>22,450</u>	<u>2 15 0</u>

The following statement shows the general result according to the sanction of Government :—

Class.	Villages.	By Old Survey.		By Revision Survey.						Increase per cent.
		Occupied Land.		Occupied Land.		Waste.		Total.		
		Area. Acres.	Rs.	Area. Acres.	Rs.	Area. Acres.	Rs.	Area. Acres.	Rs.	
1	28	54,204	60,100	54,494	83,830	4,465	1,890	58,959	85,729	39.5
2	84	63,750	56,898	65,033	72,579	2,935	1,583	67,968	74,162	27.6
3	32	32,046	19,551	34,015	24,482	4,781	1,363	38,796	25,845	25.2
4	7	3,688	2,249	3,670	2,652	781	208	4,451	2,860	17.9
5	11	30,003	11,362	30,983	14,818	4,352	942	35,335	15,760	30.4
6	9	3,327	2,088	3,308	2,823	301	85	3,609	2,908	35.2
	171	187,018	1,52,248	191,503	2,01,193	17,015	6,071	209,118	2,07,264	32.2

These figures would require a slight modification in the third and fourth groups, as the statistics for the two villages proposed to be raised from the latter to the former have been included in the third, and should properly be recorded in the fourth group. It will be seen that the unoccupied land at the revision settlement, 17,615 acres, was assessed at Rs. 6,075, or on an average 5a. 6p.

per acre, a proof of its generally inferior quality. Under the old settlement the average assessment on Government occupied land was 13a. 1p. By the Superintendent's proposals it would have come to R. 1 0a. 7p. under the new, but this would be somewhat lowered by the Survey Commissioners having lowered the maximum dry-crop rate in fifteen villages from Rs. 2 6a. to Rs. 2 2a., by placing them in the second instead of the first group.

BELGÁM.

Proposals for the revision settlement of 132 villages now composing the Belgám subdivision were submitted in February 1887, and sanctioned in September of the same year. Of these eighty-two belonged originally to Páchchápúr, twenty-eight to Bídí, and twenty-two to Kíní Karyat. They had been settled at various times from 1852-53 to 1873-74. The revision was carried out on the partial re-measurement and re-classification system, which resulted in about 12,000 old Survey numbers remaining unaltered, and 9,929, with an area of 81,307 acres, becoming 14,976, measuring 81,985.

The subdivision as now constituted is bounded on the north by the Kohlápúr State and Chikodi, on the east by Gokák and Sampgáon, on the south by Khánápúr and the Sávantvádi State, and on the west by the latter and Kolhápúr. It will be seen from the map that the villages are straggling in position and much intermixed with native territory. In the south-east it is plain and open. Farther west there are low hills, becoming steeper as the Sahyádri range is approached; and the extreme west is a series of valleys running east and west between spurs of that range. Round the town of Belgám are raised, rounded bare plains of an ochry gravel, in places almost as hard as stone. Along the brooks, which run in the hollows between these uplands, are large flats of rich black loam. Towards the north-east the black soil gives place to the poorer sandstone formation found in the south of Chikodi and Gokák. There is also black soil near Bágevádi in the south-east, and in the Kíní valley in the north, but the larger portion of the culturable area is red soil. Many perennial streams, flowing to

the Ghatprabha in Gokák or the Malprabha in Khánápur, traverse the subdivision, the climate of which in the west is damp, unhealthy, and feverish in the rainy and cold seasons. With the exception of occasional blighting east winds in the cold season, the climate of the eastern portion is pleasant, the heat of the hot weather being tempered by cool sea breezes, and the rainfall being moderate. For ten years the average rainfall had been 47·33 inches at Belgám in the east, 96·49 at Chándgad in the west, and 67·93 near Khánápur in the south. There is but little *rabi* or late crop cultivation; 53·2 per cent. is occupied by early crops, and 40·6 is given to grass and fallow. Much grass is required to supply the station of Belgám, and to provide fodder for the large numbers of agricultural cattle kept in the rice tracts of the west and the Kíní valley. Manure is largely used in these lands, and the style of agriculture generally is good. A good deal of sugarcane is raised in the rice-beds near Belgám, but the extent of garden land is small, being almost entirely confined to villages within easy reach of the station itself. This is also, coupled with Shápur, the principal market town. The next in importance are Chándgad and Bágevádi, and there are several other minor markets.

Since the first settlement the means of communication in this tract of country have been greatly improved, the West Deccan Railway now passing through it and having stations at Belgám and Desúr; this is joined by the Southern Mahratta line at Londa, in the Khánápur subdivision, thirty-one miles to the south of Belgám, where it is also brought into communication with the sea-coast (seventy miles distant) by the Goa or Mármágáon Railway. There are now also three provincial and several local fund fair-weather roads. The only local manufacturing industry is that of weaving; it is confined to Belgám and Shápur and a few villages round Bágevádi, is not of any importance, and with the opening of the railways will probably disappear.

Population as a whole has increased by 23·8 per cent. since the first settlement, but at various rates in different portions of the subdivision, the increase in Belgám itself having been 42, in the eastern villages 34, and in the western only 5 per cent. Houses, agricultural cattle, carts and wells, have also increased consider-

ably, but non-agricultural cattle, with horses and ponies, show a decrease, due to the contraction of the area of pasturage. The proportion of working cattle to area of tillage, viz. a pair to six acres, is remarkably high, and is to be attributed chiefly to the large number required for rice cultivation in the western villages, where such cattle have doubled in the course of the settlement. A good sign of the increased comfort and prosperity of the people is found in the fact of 682 new wells having been sunk, almost entirely for drinking purposes.

Of the Survey fields about 60 per cent. are cultivated by the registered occupants alone or in partnership with others, over 35½ per cent. are sublet, and only 4·7 per cent. are still unoccupied. In twenty-nine cases of sub-letting reported the total sum paid by the lessees was 15·7 times the Survey assessment, whilst in 158 cases of private sale the price realised was over 20½ times that assessment; in fifteen cases of enforced sale by order of Court an average of rather over twelve times the assessment was obtained.

The revenue history of the tract has been one of unbroken progress; the revenue collections show hardly any drop in any year of the settlement, and the later years have been marked by steady and unvarying increase. Even the famine of 1877 hardly affected it, and remissions have for some years disappeared altogether. In the last three years previous to the revision, although 549 notices of sale of occupancy rights were issued in consequence of non-payment of revenue, all demands were paid up, and not a single field was sold. The 132 villages under report were divided, from having been settled at different times, into eighteen classes for maximum dry-crop rates of assessment varying from Rs. 2½ in the east to 6a. in the west. The revision has reduced these to twelve groups with dry-crop rates falling from Rs. 2½ to 7a., according to climate, roads, and distance from railway stations and other markets, the details of which it would serve no good purpose to enter into.

The rice rates do not appear to have undergone any alteration. The area of this kind of land, directly assessed to the State, rose in the course of the settlement from 16,456 to 18,357 acres, and their average assessment from Rs. 3 8a. 8p. to Rs. 4 1a. 3p.

Garden land increased from 188 to 301 acres; its average assessment, in consequence of old land under wells being assessed at only dry-crop rates, fell from Rs. 3 6a. 11p. to Rs. 2 13a. 2p. per acre. Of this, land under wells had an average of R. 1 10a. 7p., and that under channel irrigation one of Rs. 4 11a. 2p.

The general result of the revision was as follows :—

Groups and No. of Villages.		Old Survey.		Revision Survey.						Increase per cent.
				Occupied.		Waste.		Total.		
		Acrea.	Rs.	Acrea.	Rs.	Acrea.	Rs.	Acrea.	Rs.	
1	11	10,033	13,619	10,212	17,145	314	334	10,526	17,479	25.8
2	8	6,530	8,343	6,575	10,341	58	40	6,633	10,381	23.9
3	2	4,640	12,285	4,698	15,684	1,073	1,093	5,771	16,777	27.7
4	11	11,897	17,181	12,006	21,992	565	419	12,571	22,411	28.0
5	5	5,268	8,152	5,330	9,695	240	146	5,570	9,841	18.9
6	9	8,287	7,541	8,454	10,346	42	24	8,496	10,370	37.2
7	2	2,410	3,779	2,491	4,210	63	30	2,554	4,240	11.4
8	30	23,532	18,513	24,156	21,808	1,968	782	26,124	22,590	17.8
9	13	14,565	7,279	14,662	8,391	1,830	649	16,492	9,040	15.3
10	3	1,313	423	1,279	529	624	154	1,903	683	25.1
11	12	14,320	4,663	14,503	6,122	940	190	15,443	6,312	31.3
12	26	19,985	5,793	20,432	7,290	2,410	433	22,842	7,723	25.8
	132	122,780	1,07,571	124,798	1,33,553	10,127	4,294	134,925	1,37,847	24.2

It will be observed that there are only four of these groups in which the waste land exceeds a thousand acres, the largest amount being in the last five, where, owing to the hilly nature of the country, much of the land is very inferior. The average assessment of the whole waste is under 7a. the acre. The percentage of waste on the arable area is 7.5 per cent. The returns do not show at one view what the increase in tillage area has been since the introduction of the first settlement, but there can be no doubt that it has been large. The improvement in communications, and the great enhancement in the value of agricultural produce, amounting to about double of what it previously was, have led to a state of prosperity which amply justifies the moderate increase of the average assessment rate from 14a. to R. 1 1a. 1p., or 3a. 1p. per acre.

KHANAPUR.

In May 1887 proposals were submitted for the revision of the first settlement in the subdivision of Khánápur, nearly corre-

sponding with the old Táluka of Bídí. This revision applies to 230 villages, of which six have been transferred to Dhárvár; 224 belong to Government, and sixteen are alienated.

The great bulk of the villages were first settled in 1854-55 and 1855-56. The partial re-measurement and re-classification system has been adopted, and the former shows a difference of only 3 per cent. in favour of the new survey. Khánápur is in the south-west of the Collectorate. It is bounded on the north by the subdivision of Belgám, on the east by Sampgáon and Dhárvár, on the south by the district of North Kanára, and on the west by the territories of Goa and the Sávantvádi State. In the south and south-west it is very hilly and covered with dense forests, where the population is scanty and unsettled, and tillage, except in patches, disappears. In the centre, north-east and east along the valley of the Malprabha the country is an open, well-tilled, black-soil plain, with many rich and populous villages, and in the north-west there are lofty hills, clothed with evergreen brushwood. The rainfall is heavy and certain, and very suitable for rice, which is the staple crop, and occupies nearly half the cultivated area; but *javári* and other grains are also successfully raised; nearly the whole of the latter is grown in the eastern villages, there being hardly any dry-crop tillage in the south and west.

There is, as in Belgám, a large extent of land under grass, to provide pasturage for the large stock of cattle required in a district where rice is so much grown. In the Ghát villages the rice lands grow a second crop in the hot weather, but the area of garden land is insignificant. Coffee is raised within the village sites, and in evergreen jungle numbers where the rainfall is sufficient. At the time of the first settlement there were no made roads; at present, in addition to the Southern Mahratta Railway from Belláry to the sea-coast at Goa, which joins the West Deccan line from Púna and Belgám at Londa, the two together having four stations within the limits of the subdivision, there are several provincial as well as local fund roads, so that the ryots have every facility for the disposal of their produce.

The six villages in the south-east corner transferred to Dhárvár have the railway station of Alnávar for a market, while for the

remainder Nándgad, seven miles south-east of Khánápur, is the chief mart, and the railway stations at Khánápur, Londa, and Nágargali, with other smaller markets, are conveniently situated within, and other larger ones without the limits of Khánápur are easily accessible. The population is almost entirely agricultural, there being in the way of manufactures only a few cotton looms in a small number of villages, and the preparation of rice called *churamuri*, which is exported to long distances.

The comparative statistics of population, &c., show a marked improvement under every item but that of cattle other than those used for agriculture, the increase in the number of carts, from 1,017 to 3,148, being specially noteworthy. The decrease in "other" cattle may be accounted for, as elsewhere, by the contraction of the pasturage area. Prices of agricultural produce have advanced greatly. Contrasting the twelve years from 1874-75 with the first ten years of the settlement, from 1854-55 to 1863-64, the increase in the price of *javári* has been over 42 per cent., and in that of rice $63\frac{1}{2}$, and there is every reason to believe that the opening of the railways will prevent a recurrence of low prices.

The revenue history of the subdivision is one of steadily increasing prosperity. A sudden increase in cultivation followed the introduction of the Survey rates, more specially marked in the jungly portion in the south and west. In this the area of tillage rose at once from 11,395 to 20,058 acres, and the rise continued till 1861-62, when it reached its highest point. Some 3,500 acres of poor land were then abandoned, but for the last twenty cultivation and revenue have remained at about the same level. In the six villages transferred to Dhárvár there are no outstanding balances, and no remissions have been required for the last thirty years. In the last three years in the 224 villages, out of 592 cases in which notices for the sale of occupancy rights have been issued on account of non-payment of revenue, only four of actual sale have occurred, so that the revenue is collected without difficulty.

At the first settlement the villages were divided for maximum dry-crop rates into six groups, of which the highest was in the north-east corner and the lowest near the Gháts, ranging from R. 1 4a. to 8a.; rice rates were from Rs. 8 to Rs. 4. In the revision the

rice rates remain the same, and the dry-crop range from R. 1 8a. to half a rupee. There are still six groups for dry-crop rates, falling from east to west as the climate becomes unsuited for that kind of tillage, and with due reference to market facilities. In the seventy-eight villages of the fifth and sixth groups these rates remain as at present. These two groups show a decrease in population and houses, which is attributed to the endeavour that has been made to put a stop to *kumri*, or ash-manure cultivation, the question relating to which is being re-considered. Notwithstanding this decrease, the number of agricultural cattle and carts in these two groups have been considerably augmented.

The ten acres of garden land at the old survey have now increased to 123, the old average of R. 1 9a. 7p. rising to R. 1 15a. 3p., as follows :—

	Acres.	Assessment.	Average Rate.	
			Rs. a.	p.
Under wells .	79	62	12	7
Under channels .	44	179	4	0 9
	123	240	1	15 3

The general result is shown in the statement below :—

Group.	Villages.	Old Survey.		Revision Survey.						Average per Acre.	Incr. %
				Occupied.		Waste.		Total.			
		Aren. Acres.	Rs.	Area. Acres.	Rs.	Aren. Acres.	Rs.	Aren. Acres.	Rs.		
1	18	12,060	20,009	12,763	25,932	401	195	13,164	26,127	1 15 9	29.6
2	21	10,187	13,918	10,384	18,335	235	81	10,509	18,316	1 11 11	31.0
3	58	44,697	33,554	45,472	46,085	3,470	1,570	48,942	47,655	15 7	37.3
4	55	16,456	13,666	16,691	16,998	7,237	2,639	23,928	19,637	13 2	24.4
5	64	14,002	7,760	14,146	8,691	16,373	4,118	30,519	13,009	6 10	14.6
6	14	5,561	696	5,875	772	2,180	438	8,055	1,210	2 5	11.1
	230	103,629	89,602	105,231	1,16,913	29,886	9,041	135,117	1,25,954	14 11	30.5

The increase of Rs. 27,311 has arisen chiefly in the first three groups of villages; in the others, situated in the wild country in the south and west, equal progress was naturally unattainable. The enhancement in some of the villages went beyond the limits laid down by Government in 1874, but was sanctioned as it was due to the assessment for the first time of water advantages, which had not been taken into proper account at the first settlement. Both in the newly-formed rice lands and those for which new water facilities had been provided, no enhancement of rates

had been allowed. Land under old wells had its rates reduced to within the maximum dry-crop rates of the several groups, and in order that the enhancements beyond the prescribed limits might not fall too heavily on the villagers, these were directed to be levied by degrees, as directed in the case of Sampgáon mentioned above.

It will be seen that there are several of the subdivisions of this Collectorate which have still to come under revision, from the first settlement guaranteed for thirty years not having expired. The general result of the revision cannot, accordingly, be given for the whole Collectorate. There can be no doubt, however, that the remaining subdivisions will show equally favourable results with those already revised.

DHÁRVĀR.

THE Dhárvār Collectorate lies between $14^{\circ} 17'$ and $15^{\circ} 50'$ N. Lat. and $74^{\circ} 48'$ and 76° E. Long. It contains about 4,500 square miles, with a population of about 195 to the square mile. It lies above the Sahyádrī range to the east of North Kanará, and is the most southerly of the Bombay Collectorates. It is about 110 miles long from north to south, and from forty to seventy broad from east to west. It is bounded on the north by Belgám and Bījápur and the Rámdurg State, on the east by the Nizám's dominions and Bellári, in Madras, on the south by Maisur (Mysore), and on the west by Belgám and North Kanará. It contains the eleven subdivisions of Dhárvār, Kalghatgi, Húbli, Navalgund, Ron, Gadag (Gudduck), Karajgi, Bankápur, Hángul, Kod, and Ránebennur.

The Peshvá, in 1817, under the treaty of Púna, agreed to cede territory in lieu of the contingent he was bound to maintain under the treaty of Basscin. Part of this territory consisted of Dhárvār, Kusongal, about fifteen miles east of Dhárvār, and the districts south of the Varda river. As it was considered of importance to take possession of these territories without delay, to facilitate the projected operations against the Pindháris, Colonel (afterwards Sir Thomas) Munro, was appointed Commissioner of them with civil and military powers. He had accomplished his purpose in the course of a few months, and soon afterwards wrote to the Governor-General as follows:—

“The hostile conduct of the Peshvá, and my present situation in the middle of the Southern Mahrattas, where I have an opportunity of seeing a good deal of their civil and military govern-

ment, will, I hope, in some degree excuse my addressing your Lordship. The local situation of the Pána territories and the still remaining influence of the Peshvá, as the nominal head of the Mahratta States, make the overthrow of his Government perhaps the most important of all the measures that can be adopted for the safety of our own dominions.

"The Mahratta Government from its foundation has been one of the most destructive that ever existed in India. It never relinquished the predatory spirit of its founder, Shiváji. That spirit grew with its power, and when its empire extended from the Ganges to the Káveri this nation was little better than a horde of imperial thieves. All other Hindu States took a pride in the improvement of the country and in the construction of temples, ponds, canals, and other public works. They did not seek their revenue in the improvement of the country, but in the exaction of an established tribute from their neighbours and in predatory incursions to levy more tribute. Though now, fortunately, obliged to relinquish their claims, the wish to revive them will never cease but with the extinction of their power. A Government so hostile in its principles to improvement and tranquillity ought, if possible, to be completely overthrown.

"It may be a matter of some difficulty to decide what ought to be established in its room, and whether the chief of the Government should be taken from among the relations of the Peshvá or the descendants of Shiváji. Before the establishment of the new state it might be expedient to require the cession to the British Government of the provinces south of the Krishna. The provinces between the Varda and the Krishna are not properly Mahratta; though there is a considerable mixture of Mahrattas, the Kanarese form the body of the people. The Mahratta estate-holders, or jágírdars, and their principal servants are in some measure considered as strangers and conquerors. The best of the horse are, in general Mahrattas, and are no doubt attached to their chiefs; but the infantry in the forts and villages are mostly Kanarese, and are ready to yield to any power that will pay them. All the trading classes are anxious for the expulsion of the Mahrattas, because they interrupt their trade by arbitrary exactions, and often plunder them of their whole property. The

heads of villages, a much more powerful body than the commercial class, are likewise very generally desirous of being relieved from the Mahratta dominion."

The former part of this letter is a true description of the spirit of the Mahratta rule, a spirit which, manifesting itself in the first instance in predatory excursions, culminated in the last Peshvá Bájiráo's time in the far more deeply penetrating and lasting oppression of the revenue-farming system, a system which in its mischievous effects cut down to the very root of the organization of agricultural society, and, through the grinding misery it brought about, induced habits of evasion and trickery which every man found himself forced to practise for his own protection, quite irrespectively of how this might affect the interest of his neighbour.

So it appears to have been in the Southern Mahratta country. The farm of a district was sub-let by villages or groups of villages, and the village farmers or managers, no longer guided by the paying power of those who held the land in distributing the superior farmer's demands over individual cultivators, but finding out what villagers were at enmity with each other, empowered whichever of them made the highest bid to collect the required sum. This the latter proceeded to do with no regard to rights, privileges, or tenures, but simply with a view to his own interest or according to his own caprice. It is not a matter for surprise, therefore, that before the advent of British rule numbers of the ryots had fled away to the adjacent Mysore territories, that revenue accounts were in a state of the utmost confusion where they existed at all, that all rules settling the assessment had disappeared, and that hereditary district and village officers, taking advantage of the confusion, had appropriated large areas of Government land to which they had no right.

On the management being taken over the assessments were found to be in the utmost confusion, in addition to being exceedingly unequal both on whole villages and individual holdings. Nothing definite was on record as to the contents of the latter, for the land measures were not measures of area, but seed, or *bijvári*, measures, that is, the estimated area that a certain quantity of seed was supposed to sow. The unit, although nominally the

same, varied in area according to the supposed productiveness of the land in each village.

The late prevalence of Bájiráo's farming system made the introduction of a *rayatvári*, or individual settlement, a matter of great difficulty. The village accounts had either been removed, or were deliberately kept back because they would have brought to light all kinds of irregularities on the part of the district and village officers. So much suspicion was aroused in the minds of the Collectors by the manner in which the accounts were kept back, that arbitrary additions were made to the village rentals, and called *munásib jásti*, or fitting enhancements, and the people were left to arrange their payment among themselves. These never appear to have been realised, however. It was soon found, from the evidence of outstanding balances, that the assessments were too high, and the Collector proposed that a fresh survey and settlement should be at once undertaken. As numbers of the cultivators who had fled to Mysore and elsewhere to escape Mahratta oppression had returned on the re-establishment of order, encouragement was offered them to settle down to agriculture by the offer of waste lands on liberal leases (*kíols*); and in the case of villages of which the rental had fallen by two-thirds, by the grant of *istáva* (gradually increasing) rentals on still more favourable conditions. But as these measures, and the advances of money (*takívi*) made to the agriculturists to assist them in replenishing their stock, which had suffered severely from a murrain among the cattle in the first two years of British administration, were mere palliatives that did not go to the root of the matter, the commencement of a survey was authorised and reported to the Court of Directors in the end of 1822.

The system of revenue administration at the commencement of our rule is stated in a Minute recorded by Mr. Mountstuart Elphinstone, after a tour in the Deccan, to have been for the Collector to make the annual village settlements (*mojewár*) from such information as to prices of produce, former rentals, and the condition of the villages, as he could gather from his stipendiary establishment and the hereditary district officers, as well as to superintend the distribution of the amount of the settlement in a few instances over the individual landholders of the village com-

munity. The distribution in other cases was left to the Mámlat-dárs, checked by the Collector. Disputes arising with regard to this were settled by the Panchayats, or arbitrators. Ryots were required to give notice of their intention to throw up their lands, but their return to such as they might have improved was permitted on favourable terms. Encouragement in the shape of advances and leases at low rates was given to improvements for irrigational purposes. Grazing land, with the exception of some portion reserved as *gaocharan*, or *vancharai*, for common pasturage, was sold annually. The distraint of implements of husbandry for arrears of revenue was not allowed. The ryots were collectively responsible for balances of revenue, but their responsibility was only enforced under peculiar circumstances. Balances of one year were remitted before the first instalment of the next year's revenue became due.

The chief tenure on which land was held was the *cháli* (permanent or continuous), which was very similar to the *vetá* of Gujarát. The *cháli* was probably the land originally in the holding of the principal ryots of a village, the burden of assessment on which had been gradually increased by the imposition of cesses until it was found unbearable. *Katguta*, or moderately rated land, was then added to this by way of make-weight, and as the assessment on the *cháli* became heavier, *mukta*, or *khand-mukta* (land assessed in the lump at low rates), or *káol* (leased) land was added, so as to admit of the assessment on the overburdened portion being met. Of the holding thus constituted no portion could be thrown up unless the whole were abandoned. Owing to this system of placing an assessment in the lump on a holding, and the continuous accretion of cesses on various accounts, all traces of the original assessment had disappeared, and the data on which the annual settlements had to be made were of the vaguest and most unsatisfactory character. The burdens of the ryots were lightened by substituting *takávi* (cash advances) for *haválá*, or crop-assignments, to money-lenders for loans, restoring the authority of village officers, stopping vexatious interference, preventing over-exactions, securing to people the benefit of their own improvements, allowing the revenue to be paid in good coin of any currency, and granting remissions in case of failure of crops.

The Collector, in 1828, reported on the system of revenue management in the district in terms similar to those in Mr. Elphinstone's Minute quoted above. By this period, however, although the survey initiated by Mr. Thackeray, the first Collector, had only very partially been made use of for the purpose of assessment, the more exact system introduced had furnished detailed information which enabled the settlements to be made year by year with a somewhat greater approach to equity, although such inequality existed that large annual remissions had still to be given. These remissions were granted for poverty, misfortune, and many trifling causes, as well as for bad crops; but much that was given under the last head was really due to abuses in cultivation. Unauthorized reductions given to poor landholders to induce them to continue their cultivation had thrown into their hands large quantities of land at nominal rents, which they could not cultivate properly, and which consequently never produced full crops. Together with his measurements, Mr. Thackeray had introduced a partial revision of assessment in some places. It was called the *taram* assessment, and proved a failure in all but the subdivision of Bádámi. In Bádámi the revenue had been low in consequence of the state of the country having been disturbed, and the rates imposed were light accordingly. In Navalgund peace and prosperity had led to large realisations, and the rates had consequently been fixed so high that the people suffered severely. There had not been sufficient time to study thoroughly the productive qualities of the soil, and the incidence of former payments was the only guide by which to regulate the new assessment. Matters were made worse in this part of the country by the excessively high quit-rents imposed on the service lands of the various village servants. They were found in Bádámi to be even higher than the ordinary assessments on Government lands, the result being that the duties of village headmen and accountants were inefficiently performed.

In Sir J. Malcolm's Report on the system prevalent in the Southern Mahratta country in 1830 notice is taken of these points, and a liberal settlement of the claims of hereditary officers recommended in the shape of per-centages on the revenue, with a view to give them a proper interest in advancing the prosperity of the

country. The grant of leases for the encouragement of cultivation in waste lands was also proposed to be left discretionary with the Collectors, on the general principle that such liberal terms were not to be given as to lead to the abandonment of old for new land.

In 1834, in a Report by the Sub-collector of Bágalkot, it is stated that the classification of lands and assessments carried out in Mr. Thackeray's survey were found to be very defective, and had been greatly modified by the native officials, who feared on the one hand to displease the Collector, and on the other desired to conciliate the landholders with a view to keep up cultivation. Accordingly, when the Survey raised the rents, they lowered them on such pleas as poverty of the holders, imperfect cultivation, or other similar excuse; and when the revenue fell short of former payments, waste land at low rates was added on to the holdings so as to keep up the former standard. This, of course, resulted, in the three subdivisions in which it was carried out, in a patch-work assessment, the inequalities of which were much increased by the plan of continuing at reduced rents lands which people were inclined to throw up in order to take advantage of the low rates at which leases of waste lands were offered. In the remaining subdivisions in which no revision was made, the old assessments were continued, and added to the general inequality of the rates, which necessitated the annual grant of large remissions.

When the re-introduction, on a new basis, of the *taram* assessment was proposed by the Sub-collector of Bágalkot in 1835-36, in consequence of the opposition excited in the previous year by a return to the old assessments, the Principal Collector appears to have opposed it, and recommended a return to the *cháli* system, which he considered equivalent to the *khátibandi* of Gujarát. Its advantages were that the Chálidars could be made responsible for deficiencies in the village revenues in return for the ceremonious preference in the community enjoyed by them, and that it gave the privilege of cultivating alienated land, which could thus be indirectly taxed. A general sanction was given to these proposals. How far they were acted on does not appear, but in the next year the assistants to the Collector were directed to undertake revisions in a few villages by way of experiment preliminary

to a regular survey. At the same time certain proposals for an alteration of revenue instalments was approved.

In 1840 Mr. Mills, the Collector, wrote objecting to the *rayat-vári* system for Dhárvár for various reasons. It neither gave permanency to the landed interests of the country nor to the Government revenue, but, on the contrary, encouraged fluctuations in the latter, and opened a door to all kinds of roguery. Government reposed confidence in the leading district officers, and these in their subordinates. This resulted in an annual defalcation of revenue from false estimates being made of individuals' cultivation. It was mischievous, because it led to slovenly tillage, as the ryots knew that Government would not press heavily on them. Even in favourable seasons they endeavoured by bribery to obtain low estimates of their crops, and corruption among native officials was encouraged, as they knew the annual settlements depended on their estimates. The *chúli* tenure was more adapted to native ideas, and to serve both public and private interests, as it created a proprietary right in the soil, encouraged industry, and gave permanence to the revenue. Village leases would remove many of the objectionable features of the system, in which the continual throwing up of cultivated land was an evil of no ordinary magnitude. The principle of supporting rights and privileges in connection with cultivation had been entirely lost sight of, and the original tenures of land in the Southern Mahratta country had been overthrown, instead of being preserved, as they had been in Gujarát. Endeavours should be made to make the ryots interest themselves in the soil by establishing their payments on fixed principles, and thereby prevent that constant fluctuation in cultivation that was then seen. In time they would recognize in the permanency of their payments a proprietary right, and, feeling secure in the possession of their cultivation, self-interest would dictate the making of improvements tending to better their condition. Our assessments were too heavy, and had done serious injury to rights which only required to be cherished to have become permanent and valuable. Augmented cultivation of land in all parts of India had diminished both the value of land and the prices of produce, and to keep up the land-tax at the old rates could never consist with the depressed condition of the cultivators.

It was true that reckless expenditure on their part had something to do with that condition, but the ryot was in an infinitely better position in the hands of Patels than in those of Government, provided that due caution was used in proportioning his assessment to his means and the value of his land. An hereditary title enhanced the value of landed property, as in the case of the *Nervádars* in Gujarát, who had survived exorbitant taxation. Patels in taking leases found security for their own rights, and, if respectable and possessed of capital, would, in their dealings with their cultivators, preserve the utmost harmony, and benefit both them and themselves by assisting the former to improve their cultivation.

These arguments were meant to support Mr. Mills's idea of leases to be granted in place of making *rayatvári* settlements, and in another letter he went on to argue on similar grounds for leases of their holdings to ryots. He had great objections to any survey at all; not that it was not to be depended on, but that it was calculated to mislead the Revenue officers into placing a nominal and not a real value on land, and if this was fixed the most harmful consequences must ensue.

To this Report the reply was, as it deserved to be, crushing. The statements were so vague that it was difficult to draw from them what was really meant, or on what grounds it was proposed to base the assessments, which it seemed would really be on the individual ryot and not on his land. Government formed exactly a contrary opinion to that of the Collector, and thought that what he urged amply proved the necessity for a systematic survey. Isolated attempts at reform by different officers on no settled principles would do more harm than good. According to the proposals submitted for the lease of thirty-nine villages, the new assessment was a considerable increase on the old, in place of the decrease that might have been expected from the description given of the system in force; and as this would be a strange way to improve the condition of the villages, the proposed lease could not be sanctioned.

From what was stated in a Report in the following year from the same officer, his objection appeared to be to an annual settlement with each ryot, which was not the real meaning of a *rayatvári*.

settlement. Government again gave the same answer, that the Collector's proposals were too vague for any orders to be passed on them. Sanction for a regular survey had been applied for to the Government of India, and in the meanwhile, although temporary relief might be given, no binding engagements were to be entered into with regard to assessments. Mr. Mills soon after this left the service.

In 1843, the year in which the new measurements were commenced preparatory to a revision of the assessments, great irregularities were found to have been permitted by Mr. Mills. The Mámlatdárs had been allowed to give leases for the cultivation of waste lands, and had done so for as much as 39,000 acres. Cultivation was still forced on the ryots, to whom receipt-books did not till then appear to have been supplied. When the garden land in two subdivisions had gone out of cultivation, the right to cultivate it had been put up to auction in place of lowering the rates. It was evidently high time that a radical reform of the land revenue administration should be commenced.

The last event that affected it to any great extent before the introduction of the Survey settlements in 1843 to 1845, was the abolition of the system of granting *kíols* and *istávrí* leases, leases with fixed and rising rentals, which had been found to be attended with many evils.

HÜBLI.

In 1844 an experimental settlement on the principles of the Revenue Survey had been introduced into thirty villages of the Húbli subdivision, and in 1845 a Report was submitted for the confirmation of this and its extension to seventeen more villages of the same subdivision. There was found to be a great difference of climate between villages situated on the plain and among the hills, and even between the hilly and plain portions of the same villages. The red soil of the hills and their neighbourhood required more frequent showers in consequence of its not retaining moisture, while the black soil of the plains did retain it, and therefore did not require so much rain. The former thus only

produced monsoon crops of *bájri* and early *javári*, with inferior rice raised under tanks formed by throwing dams across small valleys. The black soil produced cotton, gram, wheat, linseed, and other late or spring crops, and required a different kind of husbandry. The red was easily ploughed up, and required little more expense to break up from waste than land already under cultivation; but the black, after lying waste for some time, became overgrown with grasses, which had to be eradicated by hand at great expense and with much labour.

The market of Húbli was one of the best in the Southern Mah-ratta country. Its export trade in cotton was extensive, and its imports of salt, British manufactured goods, &c., considerable. On these two criteria the thirty villages were thrown into three groups for maximum rates of dry-crop assessment. The first group included seventeen villages, which either lay among the hills and enjoyed an ample rainfall, or were close to Húbli, and had the advantage of a good market for the sale of their produce. The second group contained ten villages, which skirted the hills, and therefore had a less certain rainfall, or were rather more distant from the market. The third group included three villages in the plain at a distance from the hills, having a scanty and precarious rainfall. The maximum dry-crop rates of the three groups were fixed respectively at Rs. 2, Rs. $1\frac{1}{2}$, and Rs. $1\frac{1}{4}$.

The garden lands in these villages only amounted to seventy-seven acres, and were assessed at rates varying from Rs. 5 to Rs. 2 per acre according to depth of water, the amount of its supply, distance from village, &c., the maximum area assigned to each water-bag of a well being three acres. The nature of the soil not being so important a factor in fixing the relative value of garden as of dry-crop lands, there were only three classes instead of the nine of the latter. The rice lands amounted to rather over 400 acres, and the variety of rice grown being inferior, the rates were not much heavier than in dry-crop lands, or from Rs. 3 to Rs. $1\frac{1}{4}$, according to situation for certainty and abundance of water-supply.

The seventeen villages subsequently included in the settlement were all near Húbli, and placed in the first group for assessment. The general result of the revision in the thirty villages was nominally to increase the area of cultivation by 1,389 acres,

but the increase was in reality much greater, as notice had been given of intention to relinquish about 2,000 acres, which were now retained. The rental of Government land was lowered by Rs. 6,864, more than half of which was recovered in the first year through increased cultivation. In the forty-seven villages the revenue on the cultivated area in the year of settlement, according to the system in force, was estimated at Rs. 38,326, inclusive of consolidated cesses, which left a margin of Rs. 8,674 to be made up out of the maximum assessment according to the new rates, inclusive of assessed waste.

The result in the three groups of the 30 villages was as follows :—

	Assessment of 1842-43.	20 Years' Average.	Survey Rental.	Compared with 1842-43.	Compared with 20 Years.
	Rs.	Rs.	Rs.	Rs.	Rs.
1st group	8,535	10,397	8,778	+ 243	-1,619
2nd group	12,783	13,639	14,757	+ 2,054	+ 1,118
3rd group	9,640	10,236	11,374	+ 596	+ 1,138

It must be remembered that the Survey rentals, as here given, are inclusive of the assessment on arable waste.

NAVALGUND.

At the same time proposals were submitted for the revision of the seventy-eight villages of the Navalgund subdivision. The soil in these was reported to be of very uniform quality. In the more westerly villages the rainfall was heavier and more certain than in those to the eastward. There was no large market town in the subdivision, but traffic generally tended westwards, so that the villages in that direction possessed a slight double advantage. Great difficulty had been found in keeping up cultivation by such expedients as throwing in rent-free lands into holdings by way of make-weight, and the assessment was very uneven. Some of the worst villages had nominally paid the lowest rates, but as the ryots held much more land than they could manage properly, the assessment had really been high.

For the purposes of the new assessment the villages were divided into three groups: (1) twenty-five of the most westerly with the most certain rainfall, about equal in general rent-paying capa-

bility to the third group in Húbli, on which they bordered, with a maximum dry-crop rate of R. 1 5a. (This was an anna higher than the Húbli rate for the corresponding group, to allow for a slight over-estimate of the value of the black soil in the latter.) This rate gave an average of 15a. an acre; (2) forty villages more to the east, with a less sure rainfall, at a maximum of R. 1 2a., giving an average of 13a. an acre; and (3), twelve villages lying farthest to the east and with the smallest rainfall at a maximum of R. 1, which gave an average of 11½a. The one village remaining out of the seventy-eight was transferred to the second group of Húbli, at R. 1½ per acre.

The general result of these proposals was an average rate of 13a. 5p. an acre over the whole area, and a total assessment of Rs. 1,43,820. This was an increase over the average of the first fourteen years of British rule of Rs. 24,256, of Rs. 10,476 over that of the last ten years, and of Rs. 33,704 over that on the cultivation of 1843-44. Notwithstanding this large apparent increase, the rates per acre in reality showed a large reduction from R. 1 10½a., which was as nearly the average old assessment as could be ascertained from the confused accounts procurable. There was thus no reason to fear that land would remain uncultivated: if there was a nominal reduction of the area under the plough from the abolition of the mischievous custom hitherto prevalent of forcing paupers to hold land, the receipts of revenue would be much the same, as that class of people seldom paid their rents, and it would be better to get rid of them.

In making these proposals a reform was introduced in the method of fixing the revenue instalments. The date of the first was postponed in Húbli from the 15th November, and in Navalgund from the 15th December to the 15th January in both cases, and as early crops predominated in the former and late in the latter, there were to be four equal instalments in Húbli to make up the whole, while in Navalgund they were to be divided into two of 3a. and two of 5a. each, so as to allow ample time for the realisation of the ryot's crops.

In sanctioning these proposals Government drew attention to the necessity of not irritating the people by departing from the existing boundaries of fields in order to form convenient Survey

numbers with regular boundaries, and suggested that in proposing revisions of assessment the criteria of prices of produce should be prominently noticed.

DAMBAL.

In 1846 the subdivision of Dambal came under revision. A difference in climate and soil divided this tract of country, which lies to the east and south-east of Navalgund, into two well-defined portions, and two groups for maximum rates of dry-crop assessment were accordingly proposed, viz. one of sixty villages at R.1 2a., and the other of twenty-six villages at R.1. The general character of the country was very similar to that of the northern and central parts of Navalgund, where the revised rate gave an average of 11a. 5p. per acre on dry-crop lands. From the accounts of sixty-four villages (excluding twenty-one which had been held on lease for some years, and in which the revenue records were consequently imperfect) average collections had been deduced, of 10a. 5p. for twenty years, of 10a. 10p. for ten years, and of 11a. 10p. for eight years, and afforded some kind of guide to the proper standard of assessment for the future.

The principal markets were the towns of Gadag and Betgeri, which almost form one. The chief exports of the district were wheat and cotton. There was little garden or rice land, and for these the same rates were proposed as for Húbli and Navalgund.

The effect of the proposed rates would probably be a reduction of Rs. 8,000 or Rs. 9,000 in the revenue for the current year, but the prospective result, when the waste land was taken up, would be an increase of about Rs. 30,000 over the average collections of the last five years, and of Rs. 20,000 over those of the last year. The collections of the latter year having been Rs. 99,580, and the full Survey assessment Rs. 1,40,000, the eventual increase would be about 40 per cent. In a short sketch of the revenue history of the district given in this Report it was stated that at the commencement of British rule the Madras *rayatvâri* system

was introduced, and leases were freely given by the Collector to encourage immigration. Mr. Thackeray's survey followed in 1825-26, but little change was made in consequence. Our management had been fairly liberal, and population had steadily increased. The ryots in the neighbouring country of the Nizám had houses in both territories, and moved from one to the other; the advantages of British rule were appreciated.

The quantity of land in each man's possession being uncertain acted as a check on the development of the country. Up to the famine year of 1832-33 (Fasli year 1242) no improvement was apparent, but the area of cultivation was probably systematically under-rated. Since then, however, the area had steadily increased, and many of the ryots were independent of money-lenders. Prices of produce had fluctuated considerably, but the general standard had not altered much since we had had the country till within the last few years, in which it had fallen. There was no doubt on the whole that the country would be greatly benefited by the introduction of a systematic and well-considered scheme of assessment. The proposed revision was approved by Government.

In 1847 a most extraordinary proposal was made by the Collector, Mr. S. Mansfield. Ryots who had claims against Government on account of over-payments were to be told to recover them from others who owed money to Government. This was not the only measure of this officer that Government had to disapprove. He had laid down rules for the entry of ryots' names in Survey fields, which amounted to a most arbitrary interference with the rights of property. For instance, if of a number containing forty acres one man held thirty-five, the whole was entered in his name. If he held twenty-eight and another man twelve, thirty would be entered in the name of the former and ten in that of the latter. If he held twenty-two and two others nine each, the former's name would be entered in twenty and those of the others in ten each. The names of more than four men were not to be allowed in one field for fear of confusing the accounts; if there were more, those excluded might be allotted land in neighbouring fields. These arrangements were to be made with as much consideration towards the people as practicable. A *cháli* ryot would seldom

lose a field in carrying them out, and if he did, it would only happen because he was a pauper and had only a few acres of land. Finally, all who had lost or thrown up fields because the land had been split up among different Survey numbers were to be offered waste fields, and only after they had selected what they wished were other such fields to be offered to the public. If several people wished to have the same field, lots might be cast for it. All these proposals were very properly negatived.

BANKÁPUR.

The revision of Dambal was followed by that of Bankápur in 1846-47. The area of cultivation in this subdivision was said to have been long declining, and more than half of the arable land, 70,000 out of 122,000 acres, was waste. The western portion of the tract as it approached the Gháts had the most certain and abundant rainfall. The chief market for its produce, Dhundshi in Húbli, was also in the west, and the traffic of cotton, of which there were about 50,000 acres cultivated, tended westwards towards the port of Kumpta. For these several reasons the villages were grouped for maximum rates of dry-crop assessment in four zones, the first, of fifteen villages, on the western border, at a maximum of R. 1 12a., and the other three, of fifty-five, thirty-six, and thirty-one villages respectively, to the eastward of this, at maxima of R. 1 8a., R. 1 6a., and R. 1 4a. These gave an average of 13a. as against one under the old rates of R. 1 2a. 3p. The rates on rice and garden lands were also considerably lowered in the former where it was under tanks from Rs. 14 6a. to about Rs. 10. This would make an immediate reduction in the revenue of about one-third.

The flourishing condition of the country under the Anagoonda dynasty was proved by the dams that had been thrown across the Tungbhadra river for irrigation purposes. A subsequent excellent survey was made, but came to an end in 1563. The

varying qualities of the land had been provided for by the size of the land measures, but these had been gradually rendered useless by the cesses imposed under Mussulman rule, and Bájiráo's farming system obliterated all semblance of order. Some measurements had been made at the commencement of British rule, but no revision of assessment undertaken. The accounts had fallen into such confusion as to be useless for settlement purposes. Inclusive of grazing tax and other miscellaneous receipts, the Survey rental compared with former years' assessments as follows:—

	On Cultivation. Rs.	Grazing- tax, &c. Rs.	Villages of which Accounts were not perfect.	Total. Rs.
Average of 28 years	77,406	1,956	10,707	90,069
Average of 5 years to 1833-34 . . .	63,289	1,508	10,707	75,495
Average of last 12 years	76,188	2,158	" 10,707	89,053
Average for 1845-46	71,820	4,988	10,131	86,939

The total Survey assessment, inclusive of that on arable waste, came to Rs. 1,15,000, which, as the waste extended to about half the subdivision, was a large reduction on the existing rental. These proposals, which provided for the absorption of the sheep-grazing and fruit-tree taxes, and included all levies hitherto made in kind by village and district hereditary officers, were sanctioned by Government.

RANIBENNUR—HANGAL—TARAS.

In 1847-48 proposals were submitted for the subdivisions of Ránibennur, Hángal, and the Taras division of Húbli.

Ránibennur is situated in the extreme south-east of the Collectorate. Its climate is similar to that of the Karajgi division of Bankápur. Its revenue history is the same as that of the

country already mentioned, and its condition up to 1847-48 had so deteriorated that the area under cultivation and revenue were actually less than at the introduction of British rule. If its resources had increased, it was from the cultivation of alienated land, which was not permitted under native rule except to ryots holding a sufficient proportion of heavily-assessed Government land. The latter had indeed gone out of cultivation, while the former had been proportionately more resorted to. It was the only thing that had enabled the people to bear their burdens. They were, in fact, as poor a class as any hitherto reported on. The inequalities of rating were so great that the proposed rates would bring down the revenue of one village from Rs. 1,200 to Rs. 154, and of another from Rs. 850 to Rs. 140.

The total area of 130 villages was 278,286 acres, of which 69,025 were alienated. Of the balance of 209,261 acres, the arable area was estimated at 190,000. For the first eight years the area cultivated was tolerably steady, but in 1829-30 it began to fall off. Leases were freely given, but no increase took place in the revenue till 1839-40, when the leases fell in, and it reached its old standard. The leases were then not renewed, and it fell off until the prospect of the Survey settlement induced people to take up land again. The average rates for the first eight years were shown by the accounts to have been R. 1 5a. 5p. per acre; in the second period, from 1829-30 to 1838-39, 15a.; and in the last eight years, when cultivation steadily declined, R. 1 5a. 7p., or deducting irrigated land, R. 1 4a. 4p.

The Ránibennur villages were about on a par as regards climate and markets (the chief of these were the towns of Ránibennur and Byádgi) with the villages of the third and fourth groups in Bankápur. It was proposed to group them for maximum dry-crop rates into two classes, at the same standard as the latter, viz., one of forty-four villages at R. 1 6a., and the other of eighty-six at R. 1 4a. These were calculated to give a general average of $10\frac{1}{2}$ a. on 190,000 acres of arable land, and one of 13a., or 2a. lower than in the middle period between 1829-30 and 1839-40, on the cultivated area. In garden land the assessment had been very unequal, in some cases ranging as high as Rs. 40 an acre, and in others little higher than in dry-crop land. The average was esti-

mated at about Rs. 8, which would be reduced to Rs. 7 by the adoption of the same maxima of Rs. 15 for lands under tanks, which were much silted up, and Rs. 5 for lands under wells, as those proposed for Bankápur. Of rice there were only 200 or 300 acres, and in this a proposed maximum of Rs. 5 would give an average of Rs. $2\frac{1}{2}$ as against Rs. $3\frac{1}{2}$, the estimated average under the old system. The produce of quit-rents on alienated lands for eight years had been Rs. 30,537, an average of $14\frac{1}{2}$ a., and would not be much reduced by the Survey rates, in excess of which, according to rule, assessment would not be imposed.

The total Survey assessment on all lands, inclusive of arable waste, would be about Rs. 1,30,000, and would compare with previous revenue as follows:—

In excess of the average of twenty-seven years' collections by 59 per cent.

In excess of the average of nine years' collections up to 1828-29 by 37 per cent.

In excess of the average of ten years' collections up to 1838-39 by 92 per cent.

In excess of the average of eight years' collections up to 1846-47 by 53 per cent.

In excess of revenue of 1845-46 by 83 per cent.

In the Hángal subdivision garden and rice lands were of much greater importance than those devoted to dry crop, the proportion being about two-thirds of the former and one-third of the latter. The variations of climate were great. In the more westerly villages the heaviness of the rainfall rendered the land for the most part unfit for dry-crop cultivation, and that of rice predominated. A mistake had been made in the classification of fifteen Bankápur villages through this not having been sufficiently attended to, as it had been found that the most injurious effects of excessive rain were perceptible in the best dry-crop soils, from their close texture preventing quick drainage. Taking this circumstance into account, a reverse process to that in the subdivisions already reported on was adopted in Hángal, and the groups for dry-crop maxima were arranged from east to west in place of from west to east. For the first group, of thirty-six villages, the maximum was

to be R. 1 8a.; for the second, of thirty-one villages, R. 1 3a. 6p.; for the third, of fifty villages, of 15a.; and for the fourth, of forty-three villages, which were close to the Kanara jungles, 10a. 6p. The estimated average rates in the four classes according to these maxima came respectively to R. 1, 11a., 9a., and 5a., as against R. 1 6a. 4p., 14a. 9p., 5a. 1p., and 3a. 10p. under the old system. A large increase of dry-crop cultivation was anticipated in the two former, but not in the two latter groups. For rice new rates were proposed, giving an average of Rs. 2 3a. on the arable area, and Rs. 2² 2a. on cultivation, a reduction of about 7 per cent. on the old rates. Garden lands were assessed highly and very unevenly, some *supiri* (betel-nut) gardens paying as much as Rs. 30 and Rs. 40 per acre, exclusive of hereditary officers' fees, the average being Rs. 18 15a. In these a maximum of Rs. 20 for gardens under good tanks to one of Rs. 5 for those under wells, which were now proposed, were calculated to give an average of Rs. 13 4a. per acre, a reduction of about one-third. The general result would be a reduction of about 25 per cent. below the revenue of the preceding year; but the total assessment on the arable area, inclusive of waste, was calculated to be 62 $\frac{1}{4}$ per cent. beyond the average of the last two years, and 74 $\frac{3}{4}$ above the revenue of 1846-47. The rate of quit-rent on alienated lands was so high (R. 1 4a. 8p. as against 15a. 6p. of the Survey) that the new settlement would result in but a slight decrease of assessment. The population of the subdivision, inhabiting small and thinly-populated villages, was reported not to have increased much under British rule, but to be on the whole better off than in the rest of the Collectorate. Fluctuations of revenue had not been very great, showing that the assessment as a whole had not been excessive. The situation was favourable, as there were many good tanks, and the rainfall was generally plentiful; but though the result of British administration on the whole had been fairly good, the burdens of individuals had been very unequally distributed.

As in the case of Hángal, the land under irrigation in the Taras division of Húbli was of far more importance than that under dry-crop cultivation: the rice assessment in the year of settlement was Rs. 11,216 to Rs. 6,959 of dry-crop. There were only a few acres of garden land in three villages. The revenue

had been generally steady, owing to the regularity of the rainfall and the large proportion of irrigated land. Population and cultivation would no doubt have increased but for the prevalence of small-pox and cholera, which carried off large numbers of people. The markets for the disposal of produce were the same as those of the northern villages of Hángal. The fifty-four villages were divided into four groups for maximum dry-crop rates on the same climatic considerations, only one in the first class at R. 1 8a., twenty-four in the second, nineteen in the third, and ten at the lowest, at gradually lowered rates.

The average assessments, according to the old and new systems, were as follows, those in the latter being on the total arable area and those in the former on that under cultivation:—

	Old System.			New System		
	Rs.	a.	p.	Rs.	a.	p.
First group. . .	1	15	10	1	2	0
Second „ . . .	0	10	5	0	11	6
Third „ . . .	0	3	11	0	7	0
Fourth „ . . .	0	2	9	0	5	0

In rice lands about half the area was waste. The old average was Rs. 3 4a. 5p. an acre, about 5a. in excess of that in Hángal. The prices of the produce of irrigated land were 10 per cent. higher, and the proposed maximum was accordingly half a rupee higher, which resulted in an average of Rs. 2 2a. on arable area and Rs. 2 4a. on cultivation, a reduction of about 30 per cent. on current assessment. The garden maximum was fixed at Rs. 10 on superior and Rs. 5 on inferior descriptions. The total revised assessment gave an increase of 34 per cent. on the average collections of twenty-two years and of 36 per cent. on those of 1846-47, the immediate result being a diminution of 19 per cent. on the revenue of Government land, the quit-rent on alienations varying but very little. All the proposals received the sanction of Government; these included a rectification in the Bankápur villages noticed above.

In this year, notwithstanding the unfavourable nature of the season, an increase in cultivation of 81,096 acres was reported, and of this about 26,000 in Navalgund alone. Although this

might be partly set down to greater accuracy of measurement, it spoke well for the success of the new Survey assessments. Orders were given to place all irrigation tanks, on which so much revenue depended, specially in charge of the Executive Engineer of the district. The plantation of trees was reported to be increasing in consequence of the abolition of the tax on fruit-trees, and it was no longer found necessary to force cultivation, the difficulty being to prevent people taking up more than they could manage properly. The system of writing off the balances of every year by the commencement of the next was disapproved, as tending to induce to deliberate non-payment in hope of obtaining final remissions.

KOD—DHARVAR—MISRIKOT.

In the next year proposals were submitted, and sanctioned for the revision of the assessments in the subdivisions of Kod and Dhárvár, and of the Misrikot petty division of Húbli.

Kod was the most southerly portion of the Collectorate, and lay along the Tungbhadra river on the borders of Mysore (Maisur). Since the commencement of British rule many people who had fled to Mysore had returned and population had slowly increased. Their chief subsistence had been derived from the cultivation of alienated land, nearly all of which had fallen waste, the rates of Government land having been so heavy, and disease having been so prevalent, that actually a smaller area was under cultivation than twenty years before the settlement, at which period only one-sixth of the arable area was under tillage. Captain Wingate believed that the whole would have been waste if it had not been for the alienated land which the cultivators could resort to. The whole country presented a wretched and poverty-stricken appearance, although it was evident, from the remains of reservoirs and other signs, that it had once been populous and flourishing.

The climate of Kod varied considerably in different parts. The villages in the south-west had a good rainfall, which decreased in others that lay more to the north and east. Cultivation, except that of the chilli in a particular tract of country, was slovenly.

The chief markets were those of Byádgi in Ránibennur, and Chikkerúr and Tilvalli within the limits of Kod, but chillies, raw sugar and cotton were exported in considerable quantities to Madras and Kumpta for the Bombay market. The country was divided for maximum dry-crop rates into four groups: the first of thirty villages, at R. 1 6a.; the second, of 134, at R. 1 4a.; the third, of sixty-four, at R. 1; and the fourth, of seventeen, at 12a. 6p.

The averages of old and new rates compared as follows:—

	Old System.			Survey System.		
	Rs.	a.	p.	Rs.	a.	p.
First group. . .	1	2	0	0	12	0
Second „ . . .	1	4	3	0	11	0
Third „ . . .	0	15	2	0	9	0
Fourth „ . . .	0	8	11	0	7	0

The total dry-crop assessment, inclusive of waste land, would under the new rates be R. 1,19,030, whereas the old realisations only amounted to Rs. 38,538.

In rice lands, owing chiefly to the neglected state of the tanks, only about 6,000 out of 20,000 acres were under cultivation; it was proposed to reduce the average rate from Rs. 3 1a. 9p. to Rs. 2. In garden land the average had been Rs. 8 9a. 3p., and that of the new rates proposed came to Rs. 6 8a., the maximum rates being the same as elsewhere, Rs. 15 for land under tanks and Rs. 5 for that under wells. The general result of the revision would be an immediate reduction of Rs. 25,000 in the revenue. In the revision a new system of water-classification was adopted for lands in which sugar-cane was occasionally raised as well as rice, depending on the greater or less certainty of the supply for the superior kind of crop.

An example of this plan is subjoined:—

1 × √3	2 × √4	3 × √5
2 × √2	2 × √4	4 × √6

× refers to the class of soil, and √ to that of water.

SOIL CLASSES.			WATER CLASSES.		
	Share.	Value.		Share.	Value.
First	1	16 annas.	Second	1	2 annas
Second	3	42 "	Third	1	3 "
Third	1	12 "	Fourth	2	8 "
Fourth	1	10 "	Fifth	1	5 "
	6	80 "	Sixth	1	6 "
				6	24 ..
Average soil class 13·4 "			Average water class 4 "		

As the value of rice land with first class water was estimated at four times that of land with the sixth, or lowest class water, in this instance the soil annas would be increased in the proportion of four to six.

For 136 villages in the Dhárvár subdivision seven groups, ranging from a maximum of Rs. 2 4a. to one of 1 4a., were proposed, chiefly on climatic considerations. In the north the open black-soil plain was well suited for the cultivation of cotton and dry crops, while towards the south, as the Kanara jungles are approached, rice predominated and dry crops were confined to the light-soiled uplands. The town of Dhárvár itself was the chief market. Under British rule the subdivision had generally prospered, although cultivation, if it had not declined, had remained stationary. It fell off steadily for the first eight years, from 1825 to 1833, subsequently to the introduction of Mr. Thackeray's measurements. In the nine years ending in 1842 tillage spread in consequence of remissions and leases being given and the assessments being on the whole lighter; but in the next three years it again rapidly decreased. In 1848, finally, it rose again, owing to the anticipated revision of assessment. The average rates under the old and new systems contrasted as follows:—

Group.	Average under Old System.			Average under New System.		
	Ra.	a.	p.	Ra.	a.	p.
1 . .	2	1	10	1	9	0
2 . .	1	12	1	1	6	0
3 . .	1	6	4	1	5	0
4 . .	0	14	0	0	10	6
5 . .	0	9	3	0	8	6
6 . .	0	5	2	0	7	6
7 . .	0	3	4	0	6	6

The average in rice lands for twenty-three years had been Rs. 3 8a. 7p., and the proposed maximum of Rs. 8 gave one of R. 2 10a. Rice cultivation was confined to the fourth, fifth, sixth, and seventh groups, and about half its area was lying waste in consequence of over-assessment. For the garden lands, which were of small area and generally devoted to the raising of vegetables for the the Dhárvár market, the same maximum rates as in Kod, giving an average of R. 5, as against one of rather over Rs. 8 under the old system, were proposed.

The new proposals on the whole caused an immediate reduction of about Rs. 40,000 on the revenue of the previous year, but the full Survey rental, inclusive of that on waste, Rs. 1,25,000, showed an increase of $24\frac{1}{2}$ per cent. above the collections of the twenty-five years ending with 1848, and one of $26\frac{1}{2}$ per cent. above those of the five years ending with 1845-46. The climate in the Misrikot division of Hábli, for the 100 Government villages of which new rates were also proposed, was almost too damp for the cultivation of dry crops, but they were grown in the villages along the eastern border. The total area of dry-crop land was about 76,000 acres, of which only 14,500 were under cultivation at an average of 10a. 6p. deduced from the returns of the last five years.

It was proposed to divide it into four groups with maximum rates ranging from R. 1 5a. to 10a. 6p., giving an average of 6a. 4p. The rice lands covered an area of about 15,000 acres, and although not excessively over-assessed, as in other parts of the Collectorate, had not been sufficiently lightly rated to encourage extension; its average assessment had been Rs. 2 11a., which the proposed maximum rate of Rs. 6 was to bring down to R. 2 1a. There was no Government garden land in the division, but if any were discovered in those parts which had relapsed into jungle, the same maximum rates would be applied as in Kod. The full Survey rental of Rs. 62,000 exceeded the average collections of twenty-eight years by $87\frac{1}{2}$ per cent., and that of the five years ending with the same year by $76\frac{1}{2}$. The change between that time and the present is shown by the fact that for some years before 1848 wild elephants used to do a great deal of damage to the crops in Misrikot.

On the question being mooted as to whether collections made in Bankápur in the year of settlement beyond the Survey assessments should be refunded or not, Government directed their refund. The sub-letting of land by Survey occupants was also ordered not to be interfered with. An increase of 83,908 acres in cultivation as a result of the revision was reported.

The Survey revision of the Dhárvár Collectorate was completed by the settlement of twenty-nine villages in the subdivision of Dambal, including eighteen of the Mulgund Mahál, which had lately lapsed.

In these villages no accounts of former assessments were forthcoming on which to base the revision, but the same rates were adopted as in the neighbouring villages of Navalgund, Húbli, and Dambal. The old rates had been nominally high, but had never been realised except in very good seasons, and remissions were given annually, of from 2a. to 12a. in the rupee, according to the state of the crops, so that the ryots were at the mercy of the Revenue officers. The former were not allowed to give up any part of their holdings, and were forced to increase them when they apparently had the means of doing so. Something like the *cháli* tenure prevailed, and every expedient was put in force to keep up the nominal area of cultivation short of disabling the tenants from continuing to farm at all.

The two groups proposed for maximum rates of dry-crop assessment were one of thirteen villages at R. 1 5a., and a second of fifteen, near Mulgund and the Tungbhadra river, at R. 1 2a., while one village in the north-east of Dambal had a rate of R. 1. The same rates for garden land were adopted as in the rest of the Collectorate. The settlement caused an increase from Rs. 41,270 to Rs. 51,030, or 23 per cent., and there remained still 13,297 acres of waste land, assessed at Rs. 6,670, to be brought into cultivation.

The following statement shows the results of the Survey settlements in the entire Collectorate from the year of their introduction in Húbli up to four years after their completion in 1850-51:—

Year.	Area. Acres.	Rental. Rs.	Remis- sions. Rs.	Sums for Collection. Rs.	Balances Outstanding. Rs.
1843-44	587,693	11,74,239	52,574	11,21,665	10,189
1844-45	570,320	11,07,602	44,259	10,63,243	9,084
1845-46	595,879	10,89,383	1,35,221	9,54,162	6,008
1846-47	685,324	11,64,482	40,996	11,23,486	4,934
1847-48	729,867	11,74,526	67,349	11,07,177	7,733
1848-49	794,046	11,22,850	21,209	11,01,641	2,522
1849-50	816,490	11,69,026	32,804	11,36,222	1,544
1850-51	843,177	11,68,197	31,290	11,36,907	1,572
1851-52	918,261	12,13,623	31,732	11,81,891	175
1852-53	946,136	12,25,107	31,691	11,93,416	—
1853-54	952,974	12,74,249	738	12,73,511	1,505
1854-55	998,084	12,99,352	520	12,99,332	166

The difference between the realisable revenue of 1843-44 and that of 1854-55 was, it will be seen, Rs. 1,77,667 in favour of the new system. The remissions given during the years in which the new settlements were in course of introduction were mostly nominal, it being the practice always to remit the difference between the old and new in each man's holding in the year of introduction of the new rates. When the process had been completed, the remissions from 1853-54 became insignificant in amount. The remissions from 1843-44 to 1852-53 were also partly due to compensations paid to hereditary officers for the abolition of their fees and perquisites.

The district continued to improve under the new settlements. The sale value of land, especially near towns, rose considerably, and money could be made by sub-letting it. The ryots were gradually freed from debt, and began to accumulate wealth. Traders were benefited by a sustained demand and a plentiful supply, and labourers by a small rise in wages, and still more by continuous employment. So wrote the Collector in 1856.

In consequence of the rebellion of the Chief of Nargund in 1858, when the Political Agent, Mr. Manson, was murdered, the chief's estate of forty villages was confiscated by Government, and a Survey settlement introduced into thirty-one of them in 1859-60. These did not form one continuous tract of country, as the villages

were intermixed with those of the neighbouring subdivisions. The soil was mostly black, intermixed with clay and limestone (*kankar*) nodules, and was favourable to the growth of cotton and other late crops. The chief market was the town of Nargund itself, from which cotton was exported to Kumpta, and wheat and gram to Dhárvár. For maximum dry-crop rates the thirty-one villages were divided into three groups one of eleven in the west, at a maximum of R. 1 7a.; a second of eighteen villages in the centre, at R. 1 5a.; and the third of two villages in the east, at R. 1 3a., inclusive of an anna in the rupee for road and education fund, elsewhere described.

The result was as follows:—

Class.	Survey Assessment.				
	Collections of 1858-59. Rs.	Cultivated. Rs.	Waste. Rs.	Total. Rs.	By Survey
1	19,954	20,954	212	21,166	+ 1,212
2	13,235	14,368	429	14,797	+ 1,562
3	2,581	2,516	15	2,531	— 50

There were only thirty-seven acres of Government garden land, rated at Rs. 2 12a. the acre. The rates were guaranteed only for twenty years instead of the usual Survey term of thirty, to provide for their expiration at the same time as in the neighbouring villages.

In 1874-75 the terms of thirty years for which the Survey settlements in the various subdivisions of the Collectorate had been guaranteed began to fall in, the first to expire being that of the forty-seven villages of Húbli, with which Captain Wingate had commenced the revision. Great changes had in the meantime taken place in the opening up of markets, the improvement of communications, and the rise in value of agricultural products. The value of land had consequently largely increased, and the condition of the country vastly improved. Population was much denser; the number of tiled and flat-roofed houses was much greater (thatched houses showing a diminution); carts, wells, tanks, and reservoirs had also increased; and although the number of cattle, sheep, and goats had fallen, this was quite accounted for by so much of the land formerly available for pasture having been cultivated.

The returns of cultivated land and revenue in the three decennial periods of the settlement in the forty-seven Húbli villages showed as follows :—

	Occupied Land.			Arable Waste.		Outstanding Balances.
	Area.	Collectns.	Remissions.	Area.	Assessmt.	
1844-1854	Acres. 36,494	Rs. 40,424	Rs. 11,558	Acres. 3,501	Rs. 8,344	Rs. 1,588
1854-1864	43,878	46,939	55	343	220	—
1864-1873	44,404	48,078	—	1,750	870	—

Eighty-one villages of the old subdivision of Navalgund, which were revised at the same time, showed the following returns :—

	Occupied Land.			Arable Waste.		Outstanding Balances.
	Area.	Collections.	Remissions.	Area.	Assessment.	
1844-1854	Acres. 182,875	Rs. 1,54,142	Rs. 5,766	Acres. 23,194	Rs. 18,340	Rs. 9,303
1854-1864	223,872	1,93,493	3	2,083	1,529	—
1864-1873	232,532	2,00,694	—	87	66	—

These figures, which prove, as the result of the Survey system, a large increase in cultivated area and diminution of waste, much enhanced revenue, and an entire absence of remissions and outstanding balances, speak for themselves as to the success of the measure.

In the revision which was now to take place all Survey numbers in excess of thirty acres were divided into two or more Survey fields, so as to make all dry-crop numbers held by one occupant range from about fifteen to twenty acres. Each man's share in a Survey field was separately marked off and assessed, so as to become a distinct property. The 128 villages combined were now

formed into seven groups for maximum dry-crop rates. The first, of sixteen villages close round Húbli, had a maximum of Rs. 3 (as against Rs. 2 of the first revision). The second, of nineteen villages farther from that town, one of Rs. $2\frac{1}{2}$. The third, of ten villages to the south-west of Húbli and bordering on the rice country, one of Rs. $2\frac{1}{4}$. The fourth, of three Húbli and five old Navalgund villages, one of Rs. 2. The fifth, of twenty-three villages forming the west centre of old Navalgund, one of Rs. 1 12a. The sixth, of forty villages in the east centre of the same, one of Rs. $1\frac{1}{2}$; and the seventh, of twelve villages in the extreme north-east of old Navalgund, at one of Rs. $1\frac{1}{4}$. A maximum rate of Rs. 8 was fixed for rice. According to the Survey principle of not taxing improvements made at the private expense of the ryots, all land under wells was assessed at not more than the highest dry-crop rate if it had been garden at the time of the last settlement, and at the simple dry-crop rate under wells made since that settlement. The former of these was a concession that went even beyond the provisions of Bombay Act I. of 1865 (the Bombay Revenue Survey Act) in respect to non-taxation of improvements, for the remission was not meant to apply to improvements already effected at the time of its passing.

The general result of the adoption of the new rates was to increase the assessment in the forty-seven Húbli villages by 68·51 per cent., and in the eighty-seven of Navalgund by 69·38 per cent. As during the currency of the thirty years the communications of the country had been opened up so that cart-traffic was everywhere practicable where formerly pack-bullocks only could be used, and the price of *javári*, the staple product, had risen in Húbli from 144 lbs. the rupee to an average of 50 lbs. in the five years preceding the revision, or 65·3 per cent., and in Navalgund from 184 lbs. to an average of 52 lbs., or 71·7 per cent., the increase does not appear to have been more than was warranted by the circumstances.

The next portion of country to come under revision comprised ninety-three villages of the old Dambal subdivision, of which eighty-six had been settled in 1845-46, and the remainder at various times since 1858. Here, too, communications had been greatly improved during the currency of the Survey lease. Since

1842 the price of *javári* and wheat had risen over 150 per cent., linseed about 50, and safflower and oil-seeds more than 200 per cent.

The following were the decennial averages of cultivation, &c. in the eighty-six villages:—

	Occupied Land.			Arable Waste.	Outstanding Balances.
	Area.	Assessment.	Remissions.	Area.	
	Acrea.	Rs.	Rs.	Acrea.	Rs.
1845-1855	182,406	1,08,993	3,383	63,681	3,641
1855-1865	255,902	1,52,882	34	7,402	—
1865-1874	265,087	1,58,082	5	3,805	—

Almost the whole of the tract consisted of black soil, well suited to cotton, a great deal of which was cleaned from seed by native and American machinery on the spot, and exported to Bellary and the coast for Bombay, mostly by European firms. Land had risen greatly in value, as much as thirty or forty times the Survey assessment being sometimes paid for it. The increase of population, of substantial as against thatched houses, of farm-cattle, wells, and tanks, and carts (these had risen from 673 to 3,998, or 494 per cent.), proved, as in Húbli and Navalgund, the improvement that had taken place in the condition of the people as much as the rise in cultivated area of over 80,000 acres recorded above. The markets of Gadag-Betgeri and other places within the tract and within easy reach of it had grown greatly in importance.

The ninety-three villages were now grouped for maximum dry crop rates into four classes. The first, of seventeen villages, including Gadag and Betgeri and fifteen villages bordering on the most easterly Navalgund villages, with the same maximum of Rs. 1½ as the latter. The second, of thirty-three villages in a belt running north-west and south-east in the centre of the subdivision, and on or close to the Gadag-Dambal road, a line of great traffic. The third, of twenty-nine villages in the north, and others along

the eastern frontier badly placed for the seaward cotton trade, with a maximum of R. 1 4a.; and the fourth, of fourteen villages outlying in the extreme north-east and south-east, with one of R. 1 2a. The rice land, with a maximum of Rs. 6, gave an average of Rs. 3 2a. against the former average of Rs. 2 2a. 8p. In some of this sugar-cane was grown once in three years, and its classification was made to depend on the time for which the available water-supply lasted, that entirely dependent on the rainfall and not under tanks paying about the same rate as dry-crop land. Garden land had nearly doubled in the thirty years, and would probably have increased more but for the brackishness of the surface-water over a large portion of the subdivision, which prevented the use of wells for irrigation.

For the purposes of revision the whole of the villages were re-measured. In particular tracts that had been found much covered with loose stones and clothed with brushwood, in which it was difficult to classify the soil, it was discovered that the soil was really good underneath, and had been classed too low. This mistake had to be rectified, and all lands classed lower than 10½a. were re-classed.

The general result of the revision, according to these principles, may be thus summarized:—

Group.	No. of Villages.	Former Survey.		Revision Survey.		Increase per cent.
		Area.	Collections.	Area.	Rental.	
1	17	Acres. 50,778	Rs. 34,153	Acres. 51,632	Rs. 52,410	53·2
2	33	96,026	55,789	93,727	87,001	55·1
3	29	106,741	61,582	110,322	90,881	46·7
4	14	26,443	16,042	28,786	19,581	19·6
	93	279,988	1,67,566	284,467	2,49,873	48·2

The following figures show conclusively that the enhancement of the demands of Government had not the effect of throwing land out of cultivation:—

	Cultivated Area. Acres.	Rental. Rs.	Quit Rents. Rs.	Collections, Rs.	Outstanding Balances. Rs.
1875-76 .	263,308	2,32,729	36,929	2,71,332	—
1876-77 .	268,299	2,32,677	36,642	2,55,584	14,807
1877-78 .	269,730	2,34,556	37,009	2,67,878	4,504
1878-79 .	268,887	2,34,230	36,749	2,67,944	4,025
1879-80 .	261,729	2,30,903	36,609	2,68,006	622

The subdivision of Bankápur, settled in 1846-47, was revised in 1876-77. It had made a great advance in the meantime, as was the case in the other subdivisions noticed above, in population, means of communication, area of cultivation, the style of its houses, the number of its carts, and the increase in its one manufacturing industry, the weaving of cotton clothes. The number of the cattle, except horses, had diminished slightly, and that of sheep and goats by about one-third, in consequence of the contraction of the area left for pasture. New Orleans cotton had been introduced, and largely supplanted the local variety.

In the three decennial periods of the thirty years' settlement the figures of tillage and revenue stood as follows:—

	Occupied Land. Acres.	Waste. Acres.	Col- lections. Rs.	Remis- sions. Rs.	Outstanding Balances. Rs.
1846-1855 .	189,690	35,620	86,143	687	4,257
1856-1865 .	221,632	3,664	1,06,943	1	—
1866-1874 .	223,304	1,933	1,08,573	—	—

In eighty-eight villages there was not a single waste Survey field. Prices of produce had risen greatly, *javári* from 262 lbs. per rupee to 86, wheat from 100 to 23, grain from 82 to 25, and rice from 86 to 42. Cotton had risen from Rs. 75 the *khandi* of 784 lbs. to Rs. 160.

For the revision the whole of the land was re-measured, and the number of Survey fields rose from 11,685 to 17,396 in consequence of the separation of the land of individual ryots into distinct properties. The area of land under rice and garden crops was found to have materially increased. For maximum rates of dry-crop assessment five groups of villages were formed with rates varying from Rs. 2½ to R. 1 6a. The maximum garden and

rice rates were respectively Rs. 12 and Rs. 8, and the general average over all Government land in occupation rose 6a. 3p., from 12a. 7p. to R 1. 2a. 10p.

The general result will be seen in the following table:—

Group.	No. of Villages.	Former Survey.		Revision Survey.		Increase per cent.	Maximum Rates.
		Area.	Collections.	Area.	Rental.		
		Acres.	Rs.	Acres.	Rs.		Rs. a.
1	4	3,142	3,437	3,721	5,349	44.1	1 8
2	50	48,164	36,291	52,992	55,728	50.1	2 0
3	52	44,019	47,376	45,503	75,293	56.3	2 4
4	25	30,365	16,293	31,188	22,821	35.8	1 10
5	6	7,081	3,954	7,185	4,849	22.6	1 6
	137	132,771	1,07,951	143,589	1,64,040	49.5	—

The following is the result of the four years administration succeeding the revision:—

	Acres.	Rental. Rs.	Quit Rents. Rs.	Col- lections. Rs.	Outstanding Balances. Rs.
1876-77	136,791	1,61,637	48,828	2,11,450	—
1877-78	137,273	1,62,270	51,543	2,14,832	258
1878-79	134,481	1,61,044	56,800	2,17,937	952
1879-80	131,402	1,59,172	57,110	2,16,921	500

It is noticeable in this return that the area of Government land under cultivation had fallen in these four years by about 5,000 acres, but the revenue had increased in consequence of the larger receipts from quit rents on alienated lands.

In 1878 215 villages of the old Hāngal subdivision and the smaller division of Taras were brought under revision. The general effects of the first Survey settlement in the three decennial periods of the guarantee are seen in the following statement:—

	Occupied Land. Acres.	Arable Waste. Acres.	Col- lections. Rs.	Remis- sions. Rs.	Outstanding Balances. Rs.
1847-1857	81,169	52,120	92,954	1,166	5,185
1857-1867	1,23,646	16,006	1,27,751	—	—
1867-1876	1,25,171	13,584	1,29,434	4	—

The revenue had been collected without difficulty, land having been sold for arrears of rent only in two cases out of 213 in which notices had been issued. The usual signs of a state of prosperity were abundant in increased population, a better style of houses, a very large addition to the number of carts, and in an improved water-supply. The diminution of pasturage area had showed itself by a decrease in the number of horned cattle (with the exception of those used for agriculture), and of sheep, goats, and horses.

The price of *javiri* had risen in the meanwhile from 180 lbs. per rupee in 1847-48 to 57 in the five years ending with 1876-77. As ascertained in the inquiries for the first settlement, the rainfall in the western villages was too heavy for dry-crop cultivation, and the groups for dry-crop assessment, six in number, were arranged accordingly. The first, with a maximum of Rs. 2 4a., consisted of six villages lying detached in the east; the second, of thirty-two, was on the eastern border of old Hángal (the villages of which had been a good deal shifted about to other subdivisions), with a maximum of Rs. 2; the third, of thirty-two, lay to the west of the second group, and had a maximum of R. 1 12a.; the fourth, of thirty-seven, one of R 1 8a.; the fifth, of fifty-seven, one of R. 1 4a., and the sixth, and most westerly, of fifty-one villages, one of R. 1. The highest rice and garden rates were Rs. 8 and Rs. 15 respectively.

Compared with the assessment under the first settlements, these rates gave the following results:—

Group.	Villages.	Former Survey.		New Survey.		Increase per cent.
		Area.	Assessment.	Area.	Assessment.	
		Acres.	Rs.	Acres.	Rs.	
1	6	3,542	3,823	3,630	6,343	65·3
2	32	28,255	31,557	28,376	47,068	47·8
3	32	20,508	17,322	21,810	25,159	44·2
4	37	23,397	24,250	25,762	36,868	40·5
5	57	29,338	30,388	35,654	48,589	46·7
6	51	18,097	20,364	20,245	30,154	41·6
	215	123,187	1,27,704	135,977	1,94,131	46·1

In the two years succeeding the new settlement the area under cultivation fell from 125,273 to 124,294, and the collections from Rs. 2,39,697 to Rs. 2,38,437.*

Ránibennur, which next came under revision in the same year, showed equally good results from the original Survey settlements, as seen in the subjoined statement :—

	Cul- tivation. Acres.	Waste. Acres.	Col- lections. Rs.	Re- missions. Rs.	Outstanding Balances. Rs.
1847-1857	96,179	80,388	80,756	2,142	5,219
1857-1867	149,950	38,117	1,11,851	—	—
1867-1877	157,603	31,279	1,15,694	1	476

In this subdivision it was found that in 1878 81 per cent of the area of Government land was tilled by the Survey occupants, and 19 per cent. sublet to others on money and grain rents. Population had increased nearly 25 per cent., and the better style of houses by 61½ per cent., while the number of thatched houses had fallen rather more. Cattle and carts, as well as improved water-supply, for irrigation purposes especially, showed that the people were far better off, and the falling off in the number of milch kine, sheep, goats and horses was traceable, as elsewhere, to the lessening of the pasturage area. The price of *javári* had risen from 192 lbs. in 1847-48 to an average of 58 lbs. in the five years ending with 1877-78. New Orleans cotton had been introduced, and answered; and this, with betel-nuts, cocoa-nuts, sugar, &c., were largely exported, in addition to being sold in the local markets of Ránibennur, Byádgi, and Gutal. A good deal of the land had to be re-measured in consequence of changes caused by the Tungbhadra floods. For dry-crop assessment the 130 villages to be revised were thrown into four groups. The first of these, of thirty-five villages, was close to the great road between Púna and Bangalore, which served as a market; this group had a maximum of Rs. 2; the three other groups had maxima respectively of R. 1 12a., R. 1 10a., and R. 1 6a. Rice land had one maximum

* By a mistake in addition this last figure is given in the "Bombay Gazetteer" as about Rs. 2,50,000.

rate of Rs. 8, and garden land one of Rs. 12, for the whole subdivision. The comparative results are given below :—

Class.	No. of Villages.	Former Survey.		New Survey.		Per-cent- age In- crease.
		Acres.	Rs.	Acres.	Rs.	
1	35	52,175	43,521	66,381	71,349	48·8
2	24	22,255	18,757	24,066	25,170	29·7
3	63	74,617	49,387	96,719	74,384	37·4
4	8	6,746	3,370	7,320	4,300	24·9
	130	155,793	1,15,035	194,486	1,75,203	40·1

The returns for the four years subsequent to the revision were as follows :—

	Area.	Assess- ment.	Remis- sions.	Quit Rents.	Col- lections.	Outstanding Balances.
	Acres.	Rs.	Rs.	Rs.	Rs.	Rs.
1878-79	147,132	1,55,793	—	29,639	1,82,094	4,941
1879-80	136,848	1,49,236	—	29,610	1,79,774	448
1880-81	134,710	1,48,336	47	29,538	1,79,028	162
1881-82	135,331	1,49,122	15,270	29,220	1,59,672	4,858

These showed a decided decrease both of area under cultivation and realisations.

In 1878-79 the revised Survey settlement was introduced into 247 villages of the old Kod subdivision. A good many of these had, in the course of the thirty years of the old settlement, been transferred to other Tálukas. The position of Kod gives it a share both in the south-west and north-east monsoons, but cultivation depends chiefly on the former, which rarely fails. *Javári* and rice among the early (*kharif*) and cotton among the late (*rabi*) were the principal dry crops, but the capsicum was also largely grown. About half the land was tilled by the occupants themselves, and $12\frac{1}{2}$ per cent. sub-let to tenants. Land, though not much dealt in, had acquired a considerable saleable value, and the whole tract of country had an abundance of good markets for the sale of its produce, and good communications both inland and

towards the coast, thus affording a great contrast to its condition before 1848-49, when want of roads rendered its position one of isolation. Prices had consequently risen greatly, as the following table will show :—

	In lbs. per Rupee.					
	Rice in Husk.	Javari.	Nachni.	Coarse Sugar.	Betel- Nuts.	Cocoanuts. Per 100.
	lbs.	lbs.	lbs.	lbs.	lbs.	Rs. a. p.
1848-1857	179	302½	303½	38	11	2 1 11
1858-1867	67½	105	123½	17½	8½	3 4 10
1868-1876	47	77½	98½	13½	7	3 15 2

The result of the first Survey settlement on cultivation and revenue is shown in the subjoined table :—

	Culti- vation	Waste.	Collec- tions.	Remis- sions.	Outstanding Balances.
	Acres.	Acres.	Rs.	Rs.	Rs.
1848-1858	87,865	115,460	86,461	44	2,623
1858-1868	162,103	44,978	1,42,826	—	—
1868-1878	170,897	35,946	1,49,991	2	26

In 1866-67 the occupied area had risen to 183,298 acres. This was partly due to the extraordinary price of cotton during the American war, and was not maintained. In the revision survey the changes in land in consequence of the Tungbhadra floods, the subdivision of fields measured in the first instance in large blocks, and the formation into separate properties of numbers at first thrown together to form Survey fields, necessitated a good deal of re-measurement and classification in detail, especially where the intermediate changes in the water-supply had to be taken into consideration. In cases in which in re-classifying the new classification appeared to be much higher than the old, as, for instance, where land entered as unarable in the first survey was found to have been brought into cultivation by mere ploughing, an allowance of 2a., or a whole class, was made, to prevent the possibility of mistakes in the new classification. In consequence of the difference in rainfall and the opening of new roads and markets, five classes for maximum rates of dry-crop assessment were now formed in place of Captain Wingate's original four. In the first class were twenty-three villages, forming a projection in the north-east

of the subdivision, having a moderate rainfall favourable for good dry-crop cultivation, with a maximum of Rs. 2. In the second class, eighty-nine villages, also in the north-east, with a rainfall not quite so favourable for dry crops, and not such good communications, had a maximum of R. 1 12a. The third class, inferior to the second in both particulars, had a maximum of Rs. 1½. In the fourth class were the forty-four western villages, where the rainfall was too heavy for dry crops, and which were difficult to get at on account of the hilly nature of the country. In the fifth and lowest class, with a maximum of R. 1 2a., were four villages in the extreme south-west corner of the subdivision, forming two projections into Mysore, and inferior both as to climate and roads. The maximum for rice in the first three groups was Rs. 8, and in the other two Rs. 7½, giving an average rate of Rs. 3 3a. 1p. as against the former average of Rs. 2 1a. 1p. In garden lands the maximum proposed was Rs. 15, giving an average of Rs. 6 14a. as against that of Rs. 6 7a. 4p. of the first survey.

The general result of the revision on the different classes will be seen from the following statement:—

Class.	Villages.	Former Survey.		Revised Survey.		Increase per cent.
		Area.	Assessment.	Area.	Assessment.	
		Acres.	Rs.	Acres.	Rs.	
1	23	15,900	13,397	18,984	21,243	46·1
2	89	69,452	56,234	83,689	87,534	39·0
3	87	58,301	53,412	71,656	84,976	38·8
4	44	26,768	26,401	32,254	40,149	35·4
5	4	2,237	1,589	3,958	3,251	39·9
	247	172,658	1,51,033	210,541	2,37,153	39·0

A large proportion of the increase of area in arable land was due to much of the land in the first instance classed as unarable having been found capable under higher prices of yielding a return for cultivation, though of inferior quality. The four years of administration succeeding the revision showed unfavourably for the suitableness of the new rates.

The returns were as follows :-

	Area. Acres.	Assess- ment. Rs.	Remis- sions. Rs.	Quit Rents. Rs.	Collec- tions. Rs.	Outstandin Balances. Rs.
1878-79	169,672	1,61,380	—	42,399	2,11,484	—
1879-80	167,206	2,02,088	—	44,625	2,51,790	—
1880-81	165,771	2,00,367	96	45,168	2,50,220	—
1881-82	164,850	1,99,381	34,244	43,504	2,10,069	—

The last year, however, as shown by the remissions, was one in which the rainfall was bad.

In 1879 the 134 villages of Dhárvár came under revision. In these, as elsewhere, communications had been greatly improved in the thirty years of the settlement, and with the general prosperity the value of land had increased so much as to be saleable for from ten to twenty years' assessment. Dhárvár and Húbli held a large trading class, who were on the look-out for investments in land. Prices of produce had risen very considerably, as the following statement shows :—

In lbs. per Rupee.

Years.	Javári. lbs.	Cleaned Rice. lbs.	Wheat. lbs.	Náchni. lbs.	Gram. lbs.	Pulao. lbs.
1848-1857	122	64	93	136	60	82
1858-1867	60	30	46	70	30	42
1868-1877	52	26	30	62	22	30
1878 . .	20	16	10	26	14	22

The following table shows the results of the first Survey settlement on cultivation and revenue in the three periods of ten years :—

Years.	Occupied Land. Acres.	Waste. Acres.	Remis- sions. Rs.	Outstanding Balances. Rs.	Collec- tions. Rs.
1848-1858	97,180	21,226	228	6,488	146,325
1858-1868	116,964	7,254	26	3	174,196
1868-1878	113,384	12,526	23	513	169,419

The falling-off between the second and third periods may be attributed partly to the inflation caused in the former by the high prices of the time of the American war, and partly to the decrease of population, which in the whole period fell off by about $6\frac{1}{2}$ per

cent. This decrease in population was ascribed to a bad type of fever that has prevailed since the year 1860. Notwithstanding this a great improvement in the condition of the people was proved by the number of tiled and flat-roofed houses having increased by 93·8 per cent., and of thatched ones having diminished by 52 per cent., while that of carts, as well as wells and other sources of water-supply for irrigation, had been largely augmented. The great decrease in the number of horses and ponies was set down partly, as in the case of sheep and goats, to diminished pasturage area, and partly to the making of roads, which enable the well-to-do to travel in vehicles instead of on horseback, as they formerly did. The measurement had to be re-done for the same reasons as those given above in Kod. A re-classification of soils was also made to some extent, because it had been found by experience that the scales formerly in force had had the effect of not drawing a sufficient distinction between the value of the superior and inferior classes.

In re-grouping the villages for maximum rates of dry-crop assessment, six classes were adopted. In the first, with a maximum of Rs. 3, came Dhárvár itself and thirteen villages in its immediate neighbourhood. The second, of fifty-one villages in the eastern portion of the subdivision, had a highest rate of Rs. 2 10a. The third, with a maximum of Rs. 2 6a., comprised twenty-four villages to the west of these and the Belgám road, and three far away to the east. The maximum of the fourth was Rs. 2, and it comprised nineteen villages to the west of the third and having a climate less favourable for dry-crop cultivation. The fifth, of eighteen villages still more to the west, and still more unfavourable for that kind of tillage, had its highest rate at R. 1 10a. And in the sixth, where the climate was almost unsuitable for it, the remaining eight villages were included, with a maximum of R. 1 4a. For rice land Rs. 9 were taken as the highest rate in the first two classes, Rs. 8 in the next two, and Rs. 7½ in the fifth and sixth. They gave an average of Rs. 2 12a. 3p. as against Rs. 2 9a. 8p. of the first settlement. The area under rice had increased from 12,797 acres to 14,647. Garden land had also increased from 561 to 986 acres. None of this was very rich, and the highest rate proposed was Rs. 9, which resulted in an

average of Rs. 4 6a. 6p. against the old average of Rs. 3 14a. 3p. As elsewhere, nothing extra was assessed on lands under new wells or tanks, and only the highest dry-crop rates were imposed on lands under wells constructed before the first Survey settlement. The general effect of the revised settlement was to raise the assessment on all descriptions of land, including arable waste, by about 39·8 per cent.

Class.	Villages.	Old Survey.		Revision Survey.		Increase per cent.
		Area.	Assessment.	Area.	Assessment.	
		Acres.	Rs.	Acres.	Rs.	
1	14	13,337	20,499	13,467	32,779	59·7
2	51	53,032	70,008	52,682	97,086	38·8
3	24	19,668	19,807	20,066	28,177	40·1
4	19	12,654	14,088	14,022	17,680	30·3
5	18	14,324	11,709	16,418	17,705	38·8
6	8	2,778	2,232	3,371	3,512	34·2
	134	115,793	1,38,343	120,026	1,96,939	39·8

The average assessment on the whole under the first and second settlements was respectively R. 1 3a. 2p. and R. 1 10a. 10p., which, considering the great increase in prices and the improvement in communications, was certainly moderate. Notwithstanding this, the returns of the three years after the revision showed a considerable fall both in cultivation and receipts. The year 1881-82 was a year of failure.

Years.	Rental.		Remissions.	Outstanding Quit Balances.		Collections.
	Acres.	Rs.		Rs.	Rs.	
1879-80	153,357	1,97,640	703	284	34,833	2,32,341
1880-81	113,917	1,96,391	43	1,035	34,854	2,31,333
1881-82	112,446	1,94,804	30,295	11,008	36,289	1,90,022

The petty division of Misrikot, part of the old Hábli subdivision, came under revision in 1879-80. It now contained 106 in place of the original 100 villages. At the time of the first settlement the communications in this tract were so imperfect

that cart-traffic was almost impossible, the only carts being those of Vadars, about eighteen inches high, with solid wooden wheels about two feet in diameter, used for bringing timber from the forests in the west to the plains. By the second revision the improvement of roads had increased the number of carts from 926 to 1,678, or 81·2 per cent. Population, probably from mortality through fever, had rather fallen off, although flat-roofed and tiled houses had risen nearly 200 per cent., and means for irrigation had greatly increased. The revenue was collected without difficulty, the sales of land for arrears in 1875-76 and 1877-78 having averaged only two out of 183 cases in which notices were served. The price of *javári* had risen from 120 lbs. in 1848-49 to an average of 38½ lbs. in the five years ending in 1877-78.

The progress of cultivation and revenue under the first settlement in the three decennial periods will be seen from the following statement :—

	Occupied Land. Acres.	Waste. Acres.	Remis- sions. Rs.	Outstanding Balances. Rs.	Collec- tions. Rs.
1848-1857	41,236	31,370	181	3,074	40,415
1858-1867	56,207	19,507	—	—	52,535
1868-1877	60,096	12,498	11	9	58,604
1878-79	62,469	5,151	—	—	61,510

In the extreme eastern villages the climate was favourable for dry-crop cultivation, such as *javári*, but farther west the country changed to a pure rice-growing tract, the dry-crop being confined to a little *rági* or *náchni*. The rainfall was almost always sufficient for dry-crops, and the rice lands seldom failed in their water-supply. The market towns of Kalghatgi and Bammigatti were centres of the rice trade, and Dhárvár and Húbli were easily accessible at all seasons by good roads. For maximum dry-crop rates the villages were arranged in five groups of 3, 23, 31, 36, and 13 villages respectively, running from east to west according to different climates, at highest rates of R. 2, R. 1 10a., R. 1 6a., R. 1 2a., and R. 1. The highest rice rate was Rs. 8 in the first three classes, Rs. 7½ in the fourth, and Rs. 7 in the fifth class. The garden land, only fifteen acres, was inferior, and rated the same as rice.

The result was as follows :—

Class.	Villages.	Former Survey.		Revision Survey.		Increase per cent.
		Area.	Assessment.	Area.	Assessment.	
		Acres.	Rs.	Acres.	Rs.	
1	3	3,224	2,559	3,406	3,792	47·4
2	23	22,008	18,063	22,478	26,666	47·2
3	31	26,636	27,553	28,646	37,753	32·0
4	36	14,422	18,337	17,856	25,910	25·0
5	13	953	1,704	1,606	2,560	24·7
	106	67,243	68,216	73,992	96,681	34·3

In the three years subsequent to the Survey, the area under cultivation and the assessment slightly increased, but realisations fell off in the bad year of 1881-82.

In 1880-81 the last revision of the old Survey settlement was carried out in the twenty-nine villages which had formed the Mulgund petty division of the Dambal subdivision. These villages had been since broken up and distributed among the new subdivisions of Húbli, Gadag and Navalgund. In these villages there was a decrease both in population and the number of cattle, which appears to have occurred in the years of famine. The better condition of the people as a whole was evidenced by the increase in the number of flat-roofed and tiled, and the decrease of thatched houses. The area under cultivation and revenue had risen from 49,503 acres and Rs. 41,270 in 1850-51 to 77,466 acres and 59,220 in 1878-79, in which year the unoccupied arable waste amounted only to 2,351 acres of poor soil, mostly in the south-eastern villages. Prices had risen in the meanwhile by fully 103 per cent. In about half of the villages a re-measurement took place; the remaining villages were only partially re-measured. Re-classification of soils was carried out sufficiently to rectify the general fault of too close an approximation in the values given to the superior and inferior classes of soil. For dry-crop assessment a modification of the old grouping was adopted. Of the old western group of thirteen villages, which had had a maximum of R. 1 10a., three, which were nearest to the great road and the

town of Húbli, were raised to Rs. 2, to assimilate their maximum to that adopted for the villages near Húbli in 1874, and the remaining ten were given a maximum of R. 1 12a., like the neighbouring ones of Húbli and Navalgund. The central group of eleven villages, which in 1850 had a maximum of R. 1 2a., was now divided into two classes, the eight western being put at R. 1 8a., and the three eastern at R. 1 6a., as in the villages of Gadag in the neighbourhood. For the four detached villages near the Tungbhadra, formerly grouped with the preceding eleven, a rate of R. 1 4a. was adopted, and in the single village of Niralgí the maximum was raised from R. 1 to R. 1 1a. 0p. The rice maximum adopted for Gadag was taken for Mulgund as well, viz., Rs. 6. In garden land under wells no extra assessment was imposed, according to the Survey principles. The general effect of the revision was to raise the assessment by 55·4 per cent. The area of arable waste by the new was 2,880 acres in excess of that by the old survey, chiefly in the poor land in the eastern villages near the hills. The details under the new and old surveys are shown in the following table :—

Class.	Villages.	Old Survey.		Revision Survey.		Increase per cent.
		Area.	Assessment.	Area.	Assessment.	
		Acres.	Rs.	Acres.	Rs.	
1	3	6,644	6,301	6,753	10,796	68·9
2	10	35,338	32,908	35,323	52,962	60·9
3	8	25,698	16,994	26,115	25,120	48·3
4	4	4,615	3,013	4,879	4,303	41·0
5	4	5,171	2,582	7,850	3,676	22·0
	29	77,466	61,798	80,925	96,857	55·4

In consequence of the effects of the 1876-77 famine and the low prices of produce, Government, in order to give temporary relief to the holders of land, ordered that for the three years ending in 1882-83 no more than 20 per cent. increase should be taken from any holding, the full new assessment being levied only after the latter year.

The effect of the introduction of the Survey settlements had in

the whole Collectorate been to raise the area of cultivation from 568,328 acres in 1843-44 to 1,273,432 in 1881-82, and the Government demand from Rs. 8,24,560 to Rs. 15,96,910. During this period remissions had fallen from Rs. 75,460 to Rs. 270, and outstanding balances from Rs. 82,360 to Rs. 2,560. Although this astonishing increase may be partly attributed to the opening up of the communications of the country and the consequent establishment of new markets for the ready disposal of agricultural produce, there can be no doubt that much was due to the equitable assessment, not only as to positive taxation, but also as to relative valuation of lands in different positions and of varying qualities towards each other, which were equally the objects aimed at in the Survey system.

The returns of the gross revenue of the whole Collectorate for the three years subsequent to the completion of the revision settlement have been as follows, and prove that the increase of assessment so far had had no detrimental effect, and had been justified by the circumstances of the times:—1881-82, Rs. 24,02,257; 1882-83, Rs. 24,05,008; 1883-84, Rs. 24,26,753.

Seven villages of the Ron subdivision, settled in 1854-55 and 1856-57, were revised in 1886, and sanction accorded to the proposals by Government in 1887. Except in 1876-77, the famine year, there had been no outstanding balances, and for the last twenty-eight years no remissions had been found to be necessary. There has been hardly any land left unoccupied, and with the exception of a slight decrease in the number of agricultural cattle, all the indications of increasing prosperity have been found in existence. Notwithstanding the small decrease in the number of cattle there are said to be still ample to meet all the purposes of cultivation. The general result of the revision, at rates similar to those sanctioned for neighbouring villages, has been to increase the assessment from Rs. 6,833 to Rs. 8,902, or 30 per cent. There were only forty-one acres, assessed at Rs. 15, an average of not quite 6 annas an acre, left unoccupied. The average assessment on occupied land was 15a. 2p. as against one of 11a. 9p. under the first settlement, an increase of 3a. 5p. per acre.

KÁNARA (NORTH KANARA).

THIS Collectorate lies on the coast of the Indian Ocean, between $13^{\circ} 55'$ and $15^{\circ} 31'$ N. lat., and $74^{\circ} 9'$ and $75^{\circ} 10'$ E. long. Its area is about 3,910 square miles, with a population of 108 to the square mile. It is about 110 miles in length from north to south, and from ten to sixty in breadth from east to west. It is bounded on the north by Belgám, on the west by the Portuguese territory of Goa and the sea, on the east and south-east by Dhárvár and Mysore, and at the extreme south by South Kánara in the Madras Presidency. It contains eight subdivisions, viz., Kárvár (Carwar), Ánkolá, Kumta (Compta), Honávar (Honore), Súpá, Yellápur, Sirsi, and Siddápur. Its vernacular language is Kanarese.

The Collectorate was transferred from Madras to the Bombay Presidency in 1862. The details of its land revenue administration from 1879–80, when it first came under British rule, up to the former year are consequently not to be found in such abundance in the Bombay records as in the case of the other Collectorates. Although it had not suffered, as many of the latter had, from the evils of the Mahratta farming system, it was none the more prosperous under the administration of Hyder Ali and Tippoo Sáheb, which, for the time the country fell under it, has been described as a series of attempts to discover how much assessment the province would bear.

Sir T. Munro, on the 31st May 1800, reported on it in the following terms:—

“Within the forty years ending 1800 the population of the country had been lessened by one-third, and there was little doubt

that its prosperity had suffered a greater reduction. . . . It may be said that this change was brought about by the invasion of Hyder, by the four wars which happened since that event, by Tippoo himself destroying many of the principal towns upon the coast and forcing its inhabitants to remove to Jumálábád and other unhealthy situations near the hills; by his seizing in one night all the Christian men, women, and children, and sending them, to the number of 60,000, into captivity to Maisur, for not one-tenth of them ever returned; by the prohibition of foreign trade, and by the general corruption of his Government in all its departments. These circumstances certainly accelerated the change, but, all taken together, probably did not contribute so much to the change as the extraordinary augmentation of the land-rent. The increase of land-rent was divided into extra assessments and new heads of revenue, because it was the extra assessments alone that added to the burden of the land-holders, and exhibited the excess of the modern over the ancient assessment of the same lands. At the accession of British power this annual assessment was still written, not only in all general accounts, but in the accounts of every land-holder. It was alone considered as the due of Government; all subsequent additions were considered as oppressive exactions. They were not called rent, but were stigmatized with the names of *chouth*, imposts and fines, and distinguished by the names of the Minister who first levied them. They were always opposed by the people."

The regular assessment was called *shist*, and the additional cesses imposed by various rulers *shúmil*, or extra.

Major Munro, although he found the country almost a desert in consequence of inordinate exactions, did not consider himself at liberty to depart widely from the established custom, and made only such reductions as he considered absolutely necessary to ensure the collection of revenue. Finding that the land had never been surveyed, and fields so mixed that hardly any but the owners knew their boundaries, he started a survey; but as all trace of this has been lost, it is probable it was not continued. As a temporary measure he proposed the adoption of the rents in force before the Maisur (Mysore) rule was introduced. This, in spite of the opposition of the Revenue Board at Madras, was sanctioned

for the year by Government, who directed at the same time that it should be called a temporary gratuitous remission. Major Munro afterwards reported that he had been led to think the reduction he had proposed too great, as the landlords' rent in Kánara was more often above than below 50 per cent. of the net produce, and ranged from 15 to 80 per cent. Pointing out that there were no large proprietors in the district, and that small proprietors were as likely to pay regularly, he proposed a reduction of only $2\frac{1}{2}$ per cent. pending the introduction of a permanent settlement. In the then ruinous condition of many villages in Bilgi and Ankolá, and of the whole of Sonda, he did not consider the time at all favourable for a permanent settlement. In a letter addressed, at the request of the Board of Revenue, to the Collectors who were to succeed him, he recommended that nothing extra should be levied where the original Bednúr assessment and three-fourths of Hyder Ali's additions were already exacted, and was doubtful whether anything more should be imposed where the former and half of the latter were levied. Government and the Board of Revenue approved these suggestions.

On Major Munro's leaving the district, it was divided into two charges, the northern portion, inclusive of the subdivision of Kundápur, corresponding to the present Collectorate of North Kánara, being placed under Mr. Read; and the southern portion under Mr. Ravenshaw.

For the next ten years the resources of the district and the condition of the people were reported to be improving, but subsequently the Collector, in consequence of the decline of agriculture, formed an opinion that the revenue raised, which he believed exceeded the Bednúr assessment plus three-fourths of Hyder's extra levies, was too heavy, and should be reduced for all the country below the hills to 30 per cent. of the gross produce. For this purpose he suggested a reduction of 7 per cent. for Lower Kánara, as well as one of 4 per cent. for the portion lying above the Sahyádrí range.

In 1817 Col. Munro and Mr. Read's successor were asked by the Board their opinion as to the maximum rate of assessment that should be fixed. They stated that the limit fixed by the former of the Bednúr assessment plus three-fourths of Hyder Ali's

additions had brought about a general improvement, and the subsequent decline was traceable to the attempt made to bring up the rent of land which had been left waste by an increase on other low-rented lands, and to levy the full amount of the extra exactions. Colonel Munro advised the keeping of all assessments below Hyder Ali's level. The Board finally directed, subject to the confirmation of Government, that the settlement for the current year should be based on the average realisations from each estate during the period of the British administration, whether such average exceeded Col. Munro's maximum or not.

The settlement for 1819-20 on this principle was, on the sanction of Government being accorded, carried out in all but Ankolá and Sonda, want of time only preventing it in them. In these subdivisions, however, the principle finally was not adopted, in consequence of the imperfection and untrustworthiness of the accounts on which the current settlement had been based. The Collector could suggest no remedy for this but a survey, which he thought would lighten the assessment on many individuals, and yet increase the total revenue by a quarter.

In 1822 he commenced an experimental survey in the subdivision of Sirsi on the following principles. He first classed the village lands under rice and garden. The rice lands were divided into three sorts: the first under tanks that were liable to overflow and destroy the crops, but which would produce sugar-cane every second year; the second sort lying above the tank but watered from it; and the third depending on the rainfall, but which was considered most certain to produce a crop. The plots of land were measured, and one-third of the gross produce, ascertained by reaping and measurement and converted into money at moderate rates, was fixed as the future cash assessment. The scale of assessment for garden lands was regulated by the estimated value of the produce. A certain number of trees were assumed to grow on a specified area, and a rate per *guntha* was fixed, irrespectively of the number and description of the trees or their productiveness. The survey proved that in that part of the country the *shist*, or standard assessment, was a certain area of land requiring a certain quantity of seed, and that the *shámil* (extra cesses) were entered in a delusive form only in the accounts. The survey had the effect

of removing the existing great irregularities and inequalities in the assessments, and at the same time added to the revenue. The settlement thus carried out was reported in the following year to have been realised without difficulty.

In 1825 the survey and assessment of four village groups in the country above the hills, and the measurement of Ankolá, Súpa, and Sonda, were carried out. It was represented, however, that the principle of assessing all lands alike at one-third of the gross produce was unfair, as the cost of working garden lands was much greater in some parts than in others, and an assessment varying from 20 to 35 per cent. of the gross produce was suggested. The Revenue Board approved the plan of ascertaining the gross produce and classing the lands accordingly, the assessment being taken at the money value of whatever share of the gross produce it was determined to levy, calculated upon an average of former years' prices. The Collector was directed to assess a few village groups upon those principles.

It will be interesting, with a view to show the crude ideas prevalent in these early days with regard to the proper methods of making revenue settlements, to state some of the objections that were urged against a survey. One was that to equalise the assessment would change the value of private property. The Board very rightly replied that the inequality originated through fraud or oversight, and there was no other way of placing the land revenue on a sound footing. It was not realised that a proper settlement did not mean merely the imposition of certain cash rents on lands, but establishing a fair relative proportion according to natural capabilities between the rents imposed on different lands. The second objection was that if rents were fixed according to the survey many land-holders would be taxed on the fruits of their industry. The Board replied that it was the same everywhere, and the mistake to be avoided was to tax extraordinary industry. The liberal principle now adopted of putting all garden land on the same level by assessing at dry-crop rates and not taxing improvements at all was evidently far in advance of the ideas of the days of which we are writing. The third objection was that there would soon again be the same inequalities, and the land-holders would object to their liability to re-assessment. The

Board replied that if the assessment was equal in the first instance it would be long before a revision became necessary; and if the land-holders were shown through the medium of proper leases that the principle was to tax the land according to a moderate estimate of its capabilities, and not according to its existing condition, they would soon come to see that the assessment could not be raised. The Board probably meant it to be distinctly stated in the leases that the assessments would not be raised in consequence of improvements effected by their holders; otherwise the objection was valid, for the land-holders would naturally be under the apprehension suggested if they were granted anything short of permanent leases.

Government generally approved of the views taken by the Board. It does not appear, however, that the instructions issued that three or four groups of villages should be assessed on these principles were ever carried out, nor is it conceivable how they could have been, or, if they had been, how the results could in any way be considered trustworthy. A work of such a laborious and complicated nature as the ascertainment of the gross produce of each field by measurement and reaping, in addition to the subsequent calculations these processes would involve before assessments based on them could be settled, would have required the services of an army of native subordinates, whom it would have been physically impossible for the Collector and his European subordinates to superintend; and without such supervision the existing inequalities of assessment would in all probability have been vastly increased, instead of diminished, through the corruption of the agency employed. Much more would this have been the case in the garden lands, where the crops were to be estimated and not approximately ascertained by reaping and measurement.

Mr. Babington, a successor of Mr. Read as Collector, had stated that the assessment fixed in 1819-20 could never be raised on any estates. Later inquiries, however, had led him to believe that Government were not pledged to continue the assessment when it was too low, particularly when there had been fraudulent encroachments. No adjustment of assessment could be made from the accounts, many of which had been falsified. Even if they had been genuine, to do so would merely have been to per-

petuate inequalities caused by the favour or corruptness of former native officials, and the only remedy, therefore, was a survey to ascertain the true state of holdings.

The state of revenue matters in 1830 led to riotous meetings. Some attributed these to the failure of crops and excessive assessment, but Government traced them rather to the inequality of the assessments. The Board of Revenue, before replying to a reference from Government on the subject, deputed their junior member, Mr. Stokes, to make local inquiries. This gentleman attributed the difference of opinion with regard to the pressure of the assessment to the absence of reliable accounts. He himself believed that the assessment was very light. The fact of land passing rapidly from the agricultural to the commercial classes had given rise to an idea of the depression of the agricultural interest, but this, in his opinion, should rather be looked upon in the opposite light, as it was not likely that men of capital would invest in what would not return them a profit. It would be a clear gain to attract capital to the soil. The assessments, he admitted, were unequal; this was partly from the natural tendency of all fixed assessments, even if originally fairly made, to become unequal, and partly from the fraudulent accounts made up by the village accountants. He proposed the extension of the system of fixing assessments according to the average of former collections. When this was not adjusted to the circumstances of each estate or *varg*, of which even the *shist* or original assessment could sometimes not be discovered, he proposed that the rent-produce should be calculated, and a proportion taken with reference to former assessment, actual collections, and the rate on neighbouring estates, varying from 40 to 70 per cent. of the rent-produce. This, he thought, would remove existing inequalities so far as they interfered with the prosperity of the country and the punctual realisation of the assessment.

The next Collector, in 1833, gave an opinion that as there was so little trustworthy information with regard to estates it would be better to have a permanent settlement in Kánara, which he proposed to base on the average of former collections, the waste lands being reserved for Government.

Nothing, however, came of either of these proposals, and in

1847 the Governor in Council came to the conclusion, which under the circumstances might have been come to at a much earlier period, that a survey was the only way of correcting fraud and inequality of assessment.

In a Report made in 1848 by the then Collector, Mr. Blanc, it was alleged that complicated arrangements had been made on the faith of the rents fixed on the average of former collections being final, and although the Board of Revenue had declared that Government were in no way pledged to the present state of things, yet, owing to the length of time that had been allowed to pass without a regular revision of rents, a re-assessment founded on a survey would cause discontent and disturb the existing relations of the landed property.

The extent of the Government right in the forests and waste lands had never been clearly defined, and large tracts of land had been appropriated by people whose right to it was extremely doubtful. There was, moreover, no record to show where the waste was situated, and the point had been entirely lost sight of when an assessment based on former average collections had been fixed. After that settlement the same kind of fraudulent appropriation had been allowed to go on unchecked, and the land-holders went so far as to say that they had a right to bring waste land thus encroached upon under cultivation without any additional assessment. The Collector believed that in fixing the assessment based on former average payments it had been the intention of Government not to charge any more for any waste lands within the limits of estates that might be brought into cultivation, and that the holders should have the full benefit of such cultivation; but this arose from an impression that these lands bore some kind of adequate assessment. He thought that neither the extent of the waste nor the importance of the question had been understood.

The question of immemorial waste attached to estates was distinct from that of waste lands once under tillage. The absorption of the unassessed waste was due to the incautious admission of, or at least the failure to oppose, the claim to immemorial waste on the part of Government. Considerable areas of waste were attached to many estates, and were often termed *kumaki*, or auxiliary; that is, land granted to help cultivation. Originally

intended to provide leaf-manure and fodder for cattle, it was not held in common, as in other parts of the country, but divided and enjoyed in separate portions by individual landholders. These lands had not been kept for their original purpose, but were brought under cultivation as a right, and even the right to sell or let them was claimed.

Such claims, when disallowed by the revenue authorities, were disputed in the courts of law with the utmost tenacity, by the use of provisions inserted in deeds with the intention of proving proprietary rights that never existed in fact, by the production of false evidence, fictitious suits, and other devices. Instances were given of the iniquitous system by which the claims of Government to assessment on land were defeated through the machinery of the civil courts in collusive suits to which the Collector was not made a party, and in which, therefore, the decision was entirely one-sided.

In this Report the Board again stated their opinion that a survey was necessary before the revenue system could be placed on a satisfactory footing, but in place of recommending such thoroughly organized operations as could alone be successful, proposed only the entertainment of a small establishment, to be placed under the orders of the Collector where a survey might be necessary. As, however, any interference with the existing settlement would result in serious evils in the numerous cases of transfers of property that had been effected on the faith of the State demand remaining unchanged, they thought the system of assessment according to past payments should, as a whole, not be disturbed. They also suggested that the claims of landholders to waste lands should be dealt with liberally. On this one of the civilian members of Government minuted in a similar sense, and the other recommended the small survey establishment under the Collector which the Board had suggested, to measure some of the lands, but at the same time thought that the average payment assessment system should not be generally disturbed.

Unconvinced by the palpable proofs of the urgent necessity for immediate and sweeping reform that had been placed before them, Government still trifled with the public interests and gave no decided orders. The weak-kneed policy that had apparently

from the first been in favour with the Madras Government continued until 1853, when the Collector proposed to assess lands newly taken up from Government waste, and lands already taken up that might be discovered to be liable to assessment, according to the quality of the soil. This was approved, and on his further explaining that the method intended to be employed to ascertain the capability of each field was to take one staple product and estimate the quality of the soil from its capability to produce this staple, this was also sanctioned. Nothing appears to have come of this, and although it was admitted that the assessment was as unsatisfactory as it well could be, no important change was made in the system until the district was transferred, in 1862, to the more vigorous administration of the Bombay Presidency.

Survey operations were at once commenced, but it was found impossible, owing to the unhealthiness of the climate, to continue them for more than three or four months in the year. Settlements of the several subdivisions have therefore had to be carried out piecemeal. It was found that no land could be identified in the Government records, the sum total each holder, or *vargdár*, had to pay being alone definitely known. Attempts to define boundaries at once gave rise to disputes, for lands were commonly held by tenants who tilled parts of two neighbouring holdings and paid rent to each of the superior holders, so that the actual boundaries of the holdings were not known. The boundaries approximately fixed by the measurers of the department always come under inspection for the second time at the time of classifying the soils a year or two afterwards, and this affords an opportunity for correcting any mistakes that may have crept in by the light of any further facts or evidence that may be produced. A third inspection of every field is made, before the introduction of the settlement, by the *Mámlatdár* and his establishment with the aid of the village map, on which each holding is entered in detail, and disputes, being thoroughly investigated on the spot in the presence of the parties and the villagers, seldom fail to be decided, if not by the *Mámlatdár*, by the settlement officer when the new rates are given out.

The whole of the lands were measured off into separate fields and assessed according to the Bombay Survey system. The ex-

isting boundaries of holdings being strictly adhered to, and Government waste land being similarly defined by permanent boundary marks (stones or large mounds of earth), the possibility of future encroachments has been prevented. As much of the waste as it was proposed to reserve for forest purposes was marked off in large blocks, to be placed in charge of the special Forest Department, and as much of the remaining arable waste as appeared likely to be required for the early spread of cultivation was marked off into Survey numbers and assessed.

A proposal submitted to Government in 1865 to give out large blocks, not exceeding 250 acres, of waste in Kánara on lease for thirty years at a low rate of 4a., to be levied whether the land was cultivated or waste, was sanctioned. The blocks were to be marked off by pillars, and all the timber within their limits marked by the Forest Department was to be cut and stacked by the grantee, to be handed over to a Government officer. Sanction was also accorded to about eight acres of coppice, assessed at the same rate, to be attached to every acre of garden land in the subdivision of Sirsi. This limit, however, was not to be strictly adhered to, but more or less might be given according to circumstances.

Between 1864 and 1867 revised assessments according to the principles of the Survey were introduced without opposition into 199 villages and hamlets in the subdivisions above the Sahyádrí range, and in 1868 into seventy-one villages of Mundgod, two of Yellápur, and twenty-one of Halujál. In twenty-three of these villages measurement had been carried out under the orders of the Madras Government in 1820-1825, and by the new measurement a cultivated area of 2,254 acres in excess of that which had paid assessment under the former system was discovered. The revised assessment of Rs. 7,388 was, however, notwithstanding this increased area, almost identical with that previously leviable, the average rate being R. 1 4a. 11p. as against Rs. 2 4a. under the old system. The same maximum rates in forty-eight villages that had never been measured before caused a large increase of assessment, but as the rates were similar to those levied in the neighbouring villages of the Dhárvár Collectorate, no objection could be taken to them.

Similar rates had been introduced in 1865 into the Súpá subdivision under the sanction of Government, and the sanction had been continued for a year. The Survey Commissioner of the Southern Division, Col. Anderson, proposed that the rates should be guaranteed for only fifteen years, but the Collector, Mr. Shaw Stewart, wished them to be made permanent, for the following reasons. The land tenures were of great antiquity, and the land had had a saleable value for generations past. That value would be considerably depreciated by the introduction of the new settlements. The Madras Revenue Officers, moreover, had never contemplated such periodical revisions, and additional revenue was being raised on lands to be taken from the forests. It was, however, only the old occupancies he desired to see permanently assessed; new occupancies, or those created in future, he would leave open to revision.

In reply to this the Government of Bombay admitted the proprietary title of the land-holders, but dissented from Mr. Shaw Stewart's other conclusions. The history of the district showed that the old rulers were in the habit of raising and lowering the assessment at pleasure, and Munro, in lowering it, not only gave no permanency to the decreased assessment, but himself looked forward to a time when a portion of what was remitted might be re-imposed. His reason for making a considerable reduction at once was that he was averse to constant and partial changes. As shown by Col. Anderson, modifications had been made by the Collectors, but they all failed of success because the Collectors had no means of determining a correct standard of assessment. It was not admitted that a proprietary title gave any particular claim to consideration in this respect. It was not claimed in the case of the Mirásdars of the Deccan, who were as much proprietors as the Múlvargdárs (original holders of a *varg* or *khátú*) of Kánara. The Survey settlement gave them no new rights, but gave a better position to holders of *gathul* land (as a general rule lapsed *mirás*), as it would do to *cháli vargdárs*, who were not considered to have permanent occupancy rights. The complaint of the depreciation of property was traceable to the village officers, who held concealed land. The increase in assessment by the Survey arose not from high rates but from the taxation of this

hitherto concealed cultivation. The *shist* and *shámil* of the original assessments and the 30 per cent. standard of gross produce adopted later were both greatly in excess of the Survey rates. The Survey settlement would probably increase the saleable value of land, especially if it was properly explained to the people that no interference with proprietary title was proposed.

No claim to permanency of assessment had, in the opinion of Government, been made out, nor would it be right to give any guarantee for such permanency, as the rates were admittedly too light. The proper limit of assessment had not probably been reached, and even if the policy of a permanent settlement were admitted, it would not be expedient to grant it in the present instance. The circumstances of the people appeared to require a long lease to give them an opportunity for recovering from their depression, and one of thirty years was accordingly guaranteed. If *mul-pattás* (original leases) were produced so specifically worded that the land referred to in them could be traced, and the leases had been granted by competent authority, claims based on them to limitation of assessment might be admitted, but not otherwise.

Organized opposition to the introduction of the Survey assessments first began when the new rates in eighteen villages in the neighbourhood of the town of Kárvár were given out. Considering the advantageous position of these villages, the rates were decidedly low, and had been made so designedly on account of the inexpediency of demanding at once the increase, about 100 per cent., which the rectification of the old fraudulent practices would bring about. It was thought advisable that for the first settlement a moderate rate should be imposed as a compromise, leaving the attainment of full rates to a revision at the end of thirty years. When the first instalment of the new assessment fell due, payment was refused not only by those whose assessments had been raised, but also by those on whom the demands of Government had been lowered, and a large number of suits were filed against Government to test their right to revise the assessment at all, and decide whether the old assessment was not permanent.

On the part of the Revenue authorities the only relaxation allowed was that any sums demanded in excess of what might be

recorded in deeds of lease older than the transfer of Kánara to Bombay, such deeds to be produced and authenticated by the Collector or an officer deputed by him, might be allowed to stand over; otherwise, everyone was given the option of resigning his land and paying the full current assessment for 1870-71, or of paying the Survey rates if the land was not resigned by a certain date. Otherwise, the Collector was to proceed to levy by regular legal process. This resulted in a celebrated law-suit in the Bombay High Court, in which in 1875 every point was decided in favour of the contention of Government of their right to re-assess, and the Survey settlement has since proceeded without interruption.

In order to suit the peculiar circumstances of the district, and prevent the sudden enforcement of payments on land hitherto held without payment of assessment bearing hardly upon the people, two important concessions have been made in the administration of the Survey settlements, which must have tended greatly to reconcile the land-holders of Kánara to the change of system. The holder of land uncultivated at the time of settlement can retain the right of occupancy for five years afterwards on payment of an eighth of the assessment, providing the holding is assessed at Rs. 25 and upwards.

This concession was confined to the part of the district lying below the hills, and was given to allow time to large land-holders, who claimed land under the old system with a view to prevent its occupation by their tenants directly under Government, to prepare for the cultivation of the land themselves, and thus keep up competition in order to maintain their rents. The other concession was that in all holdings of over Rs. 25, when the new assessment was more than 50 per cent. in excess of the old, only 50 per cent. of the increase should be levied in the first year, 25 per cent. more in the second year, and the full increase only from the third and subsequent years. This prevented too sudden an enhancement of demand on the ryots.

The revision of assessment in the Kánara Collectorate has been carried out in such a piecemeal manner as to render it difficult to treat it as a whole for each subdivision, as in other Collectorates. The following account will, therefore, necessarily be imperfect.

In the subdivision of Kárvár eighteen villages were first under-

taken in 1870. These consisted of (1) seven villages, including Kárvár and six in the immediate neighbourhood, of seven others a little farther from the port, and of four others not so favourably situated as regards communications, being farther away from the sea and the river. These had maximum rates in the different descriptions of land as follows:—

	Rice Land.	Garden.	Pulan.*	Dry-crop Land.
	Rs. a.	Rs. a.	Rs. a.	Rs. a.
First group .	6 8	9 0	1 15	0 12
Second group	6 0	9 0	1 13	0 12
Third group	5 0	9 0	1 8	0 12

The average rates from these were, in rice Rs. 3 11a. 1p., in garden Rs. 7 5a. 9p., in *pulan* R. 1 5a. 4p., and in dry-crop 5a. The whole assessment at these rates rose from Rs. 19,354 to Rs. 40,512, an increase of 109·3 per cent.

Proposals were submitted at the same time for a revision in twenty-eight other villages of the same subdivision by adding a fourth and fifth group, with maximum rates somewhat reduced, as follows, on account of their being less favourably situated than the first eighteen as regards communications:—

	Rice.	Garden.	Pulan.	Dry-crop.
	Rs. a.	Rs. a.	Rs. a.	Rs. a.
Fourth group .	4 4	7 0	None	0 10
Fifth group .	3 8	7 0	„	0 10

The first three groups in these twenty-eight villages, being intermingled with the eighteen first settled, had the same maximum rates as the latter. The total increase according to the revision in these was 150·3 per cent., from Rs. 15,727 to Rs. 39,372. This was accounted for in several ways. The increase was largest in the fourth and fifth groups, which were the most remote, and were consequently those in which the area of cultivation could be most successfully concealed. The area thus brought to light in these villages came to 1,489 acres. Moreover, several villages in these groups were entirely occupied by the most influential land-holders in the Táluka, and their assessment had been fraudulently lowered by the Shánbhogs (village accountants), the

* This was sandy soil near the coast, capable of being converted into garden- and cocoanut-bearing land.

accounts being squared by the assessment being imposed either upon inferior estates which could not bear it, or on land which only appeared in the accounts but had no existence at all.

The remaining fifteen villages of the subdivision were subsequently settled in 1872. They were intermixed with or adjacent to those of the first four groups already settled, and had the same rates applied to them respectively, with the general result of an increase in revenue of 86·1 per cent., from Rs. 14,585 to Rs. 27,158.

The general result in the whole subdivision was as follows :—

	Old Assessment. Rs.	Revised Assessment. Rs.	Increase. Rs.
18 villages	19,354	40,512	21,158
28 „	15,727	39,372	23,645
15 „	14,585	27,158	12,573
<hr/> Total 61 „	<hr/> 49,666	<hr/> 1,07,042	<hr/> 57,376
			or 115·5 per cent.

The revision was at the time only provisionally sanctioned by Government in view of the litigation in progress with regard to the right of the State to revise the existing assessment. This point, as already stated, was finally given in favour of Government.

The subdivision is bounded on the north by the Portuguese territory of Goa and the Súpa subdivision, on the east by that of Yellápur, and on the south by Kuntá, whilst the sea lies on its west. The Kálí Nadí runs through its centre, and it has the great advantage of the port of Kárvár for the export of its produce.

The revision of the Kuntá and Ánkolá subdivisions was carried out in batches of forty-nine, twenty, forty-one, twenty-two, and seventy-six villages. To these were subsequently added the remaining six villages, and four hamlets which were thenceforward to be considered separate villages. The whole are bounded on the north by the Kárvár and Yellápur Tálukas, on the east by that of Sirsi, on the south by Honávar and Siddápur, and on the west by the sea. The climate of all being much the same, it has been divided into seven groups according to facilities for export of produce and means of communication, with a uniform dry-crop

rate of 12a., and rice rates descending from Rs. 6 8a. in the highest to Rs. 3 in the last group. A maximum of Rs. 10 was adopted for garden lands, and others from R. 1 15a. downwards for the *pulan* or *shitta* land described above.

The general result was as follows :—

	Old Assessment. Rs.	Survey Assessment. Rs.	Increase. Rs.
49 villages	48,339	54,220	5,881
20 „	12,476	23,013	10,537
41 „	32,997	44,796	11,799
22 „	13,689	20,461	6,772
76 „ { 68	29,218	39,458	10,240
8	6,212	10,529	4,317
6 „	2,990	5,123	2,133
<hr/> 214	<hr/> 1,45,921	<hr/> 1,97,600	<hr/> 51,679

or 35·4 per cent.

This is exclusive of *in'im* (alienated) and waste land.

The Honávar (Honore) subdivision, bounded on the north by Kumta, on the east by the Siddápur subdivision and Mysore, on the west by the sea, and on the south by the Kundápur Táluka in Madras, has had its assessment revised in three instalments of forty, twenty-eight, and fifty-five villages respectively, from 1885 to 1887. They have been grouped in four classes, with maximum rates for rice of from Rs. 6 8a. to Rs. 4, in dry-crop of from 12a. to 8a., in garden land of from Rs. 12 to Rs. 7 8a., and in *pulan* from R. 1 15a. downwards.

The general result of the assessment on the Government land in occupation has been as follows :—

	Old Assessment. Rs.	New Assessment. Rs.	Increase. Rs.
40 villages	40,561	56,699	16,138
28 „	21,338	36,089	14,751
55 „	20,915	25,700	4,785
<hr/> Total . .	<hr/> 82,814	<hr/> 1,18,488	<hr/> 35,674

or 43 per cent.

In all three groups of villages there was a decrease of assessment in some, whilst in others there was a very large increase, thus proving the very great inequality of the old rates.

The Sirsi subdivision, which lies to the east of Kumta and Akolá, to the north of Siddápur, and to the south of Yellápur, has been settled in four instalments of twenty-one, twenty-eight, forty-six, and twenty-six villages, from 1885 to 1888. It has been thrown into five groups, with maximum rice rates of from Rs. 5 to Rs. 3 8a., of dry-crop from R. 1 to 10a., and of a general maximum of Rs. 14 in garden, with a general result in Government occupied land as follows :—

	Old Assessment.	New Assessment.	Increase.
	Rs.	Rs.	Rs.
21 villages	9,345	9,686	341
28 „	9,883	14,321	4,488
46 „	16,483	24,011	7,528
	<hr/> 35,661	<hr/> 48,018	<hr/> 12,357

or 34·6 per cent.

The returns for the remaining group of twenty-six villages afford no proper means of comparing the assessments under the two systems on account of the imperfection of the old records, but fifteen of them in which these are complete give an increase of 38·7 per cent.

The settlements of the subdivisions of Sápá and Yellápur, which adjoin the Belgám and Dhárvár Collectorates on the south, have been carried out in so many different instalments, and cover such a deal of correspondence from 1865 to 1886, that it is impossible to give a connected account of the whole. The grouping for maximum rates of assessment has been arranged on similar principles to those adopted elsewhere, that is, varying according to climate and facilities of communication, and the maximum rates are similar to those of the adjacent subdivisions.

A fairly connected account of the revision in the remaining subdivision of Siddápur can be gathered from the records, and will now be given.

In 1888 and the two following years the Survey system was introduced respectively into twenty-one, sixty-seven, and eighty-one villages of the Siddápur Táluka of this district, the returns for which are not included in the comparative statement of revenue given above. A good description of the physical features of the

tract of country is given in the following extract from the Assistant Settlement Officer's Report on the settlement:—

“To describe the Táluka it will facilitate matters to divide it into three sections running lengthwise from north to south. The western section comprises a thickly-wooded, hilly, and rugged country, running along the crest of the Gháts. The population of this tract is sparse and scattered, and the rainfall excessive, but affording a water-supply capable of producing double rice crops. The central division consists of a congeries of hills and spurs from the Gháts, with deep intervening valleys, which, fertilised by the humus washed from the high and wooded surroundings, form most favoured situations for the cultivation of the betel-nut and other garden productions. The population here is still scattered, the cultivators living in separate homesteads close to their gardens, instead of in communities, as in the more open country. The eastern section differs considerably from the above. On emerging from the hills, the change to what, for Kánara, may be termed open country is more or less sudden. The forest becomes thinner and growth more stunted, while large stretches of grass land and bare hill-tops meet the view. The garden cultivation gives place in a greater measure to rice, the population is denser, and the people live in communities in villages. The geological formation is laterite, and in this portion of the Táluka the soil is light, sandy, and so shallow as to afford little root-depth, a fact indicated by the stunted appearance of the forest and thin grasses, which afford but little nourishment to the cattle. The deciduous forest throughout the Táluka is interspersed with ever-greens (*kans*) of the finest descriptions, and here the soil is rich and deep, and retentive of moisture, supplying the springs under which sugar-cane is largely grown. The average rainfall for the last ten years, as registered at the Siddápur Mámlatdár's *kacheri*, amounts to 106½ inches. It must, however, be much heavier towards the Ghát.”

Statistics for the three portions of the Táluka successively settled have been separately collected, and will now be combined as far as possible, in order to give a complete view of the whole. The density of the population varies from 82 to the square mile in the more westerly villages to 191 to the same area in those on

the east more immediately surrounding the town of Siddápur. This is the only mart of any importance, that of Bilgi, a few miles to the west, being comparatively little resorted to. The yearly sales of agricultural produce at the former are valued at about $2\frac{1}{4}$ lakhs of rupees. About one-fourth of this produce may be said to be imported from the territory of Maisur (Mysore), which adjoins the Siddápur Táluka on the south. It is well off in the matter of roads on which cart traffic is practicable. The main road from the Sirsi Táluka on the north to the port of Honávar (Honore) *viâ* the Malimani Ghát traverses it from north to south, and passes through Siddápur. Two roads branch off from this *viâ* the Nilkund and Dodmani Gháts, and open up communication with the port of Kumtá (Compta). Three other roads from Siddápur connect it with Banáosi to the north, Soráb to the east, and Ságar to the south. These are all important market towns, the last two lying in Maisur. A good deal of the garden produce of the Táluka finds its way eastward to the railway line at Haveri, and thence inland to Bellary, &c. There are few parts in which communication by carts is not practicable within two or three miles, and although there are only about 500 agricultural carts owned by the people, the want is supplied by those belonging to the dealers of Siddápur, which collect the produce *in loco*.

From what can be ascertained with regard to the early revenue history of the Táluka, it appears to have been settled between A.D. 1334 and 1337 by one Harihar Rai, but precisely on what principles is not known. The several Governments of Bednur, Hyder, and Tippu Sáheb largely increased the rents then fixed, and the exactions of the last-mentioned were so severe as to leave the country in an impoverished condition. On the assumption of rule by the British large remissions were given under Sir T. Munro and succeeding Collectors. In this settlement, which was termed the *tharáo*, those who were most clamorous in their demands gained the largest share, and remissions were not fairly meted out to those who were not of old and influential families, those granted in the poorer rice villages occupied by humbler tenants being insignificant. The accounts on which those settlements were made were quite untrustworthy, being drawn up by the Shánbhogs, or village accountants, from the *bijwiri*, in which the area of land

was estimated by the quantity of seed sown, and the *hútúvali*, or return of the whole produce of each estate.

Remissions of demand given in the twenty years preceding the settlement for casual reasons were insignificant in amount. Permanent remissions, the reductions of demand noticed above, amounted to about Rs. 18,300 a year, and the balance appears to have been collected without difficulty. The latter averaged for these years Rs. 89,920.

Of the arable land in occupation only 6,183 acres were found to be devoted to fallow and dry crops, and 22,413 acres, to rice and garden cultivation. There are still unoccupied of dry-crop lands 4,330 acres, of rice 797 acres, and of garden land 56 acres. It is evident from these figures that the ryots depend for their subsistence chiefly on their irrigated lands, and dry-crop cultivation does not occupy much of their attention. The subdivision of land, as might be expected under such circumstances, is very minute, the average area per head of the agricultural population being from three-fourths to nine-tenths of an acre. The care and skill with which cultivation is carried on is proved by their possessing a pair of oxen for every four or five acres, whereas in countries where dry crops are mostly raised a pair is considered sufficient for from twenty to twenty-five acres.

For assessment purposes the Táluka has been divided into three groups of villages. The first of these comprises eight in the immediate neighbourhood of Siddápúr itself as the chief market; the second, of 123, rather more remote from the market, but containing the finest soil and the greatest facilities for the growth of rice, sugar-cane, and garden crops; and the third, of thirty villages, situated on the edge of the Ghát district, deficient in means of communication and supply of labour, where the rainfall is so heavy as to be unsuitable for dry-crop cultivation, and produces a feverish climate. For these in dry-crop lands maximum dry-crop rates of 14a., 12a., and 10a. have been severally adopted. This has given a total assessment of Rs. 2,567, and an average rate of 6a. 6p. per acre on the 6,307 acres of land now in occupation. There remain still 4,330 acres unoccupied, assessed at an average of 7a.

For the three groups maximum rates of Rs. 4 8a., Rs. 4, and

Rs. 3 8a. have been adopted for rice lands. These give a total assessment of Rs. 39,944, and an average rate of Rs. 2 8a. 4p. per acre. On the unoccupied area of 798 acres the average at the same rates comes to Rs. 2 1a. per acre. These averages vary from Rs. 2 14a. 10p. in the first to Rs. 2 4a. 9p. in the third group.

For garden lands a uniform maximum rate of Rs. 14 has been adopted, and has resulted in a total assessment of Rs. 82,877 and an average rate of Rs. 12 8a. 11p. This proves the superior quality of this description of land. There remain unoccupied only fifty-six acres, assessed at Rs. 327, or an average of a little under Rs. 6, and thus evidently of an inferior quality. The most valuable are those of the second group, assessed at an average of Rs. 12 10a. 1p. an acre.

Owing to the irregular manner in which the accounts of previous collections have been kept, there are no means by which those on the different descriptions of land in the several groups can be compared with each other. For fifteen out of the twenty-one villages first settled the total increase was from Rs. 11,165 to Rs. 14,802, or 32·6 per cent. For fifty-one villages out of the second batch of sixty-seven the increase was from Rs. 26,051 to Rs. 34,513, or 32·5 per cent.; and for sixty-six out of the third batch of eighty-one from Rs. 34,381 to Rs. 48,269, or 42·4 per cent. It may be assumed that the increase on the whole is about 33 per cent. The large enhancement of demand in the case of this last batch is accounted for by the fact that the tract of country comprised in it is farthest from head-quarters, and the clandestine appropriation of land was easy, owing to the comparative absence of supervision of the higher Revenue authorities, even if it is not made collusively with the village accountants, who would probably, if honest, not take much trouble to verify in out-of-the-way and almost inaccessible valleys the correctness of the statements of seed sown (*bijvari*), on the basis of which the areas of occupied land have hitherto been calculated.

The increases on individual holdings will, in accordance with the plan already sanctioned, not be levied at once, but gradually, so that the enhanced demands of the State will not press hardly upon the cultivators. The assessment as a whole has been pitched at a somewhat lower level than in the neighbouring Taluka of

Sirsi to the north, on account of the greater distance at which it lies from the line of rail to Húbli and Bellári. The principle of this is correct, as the bulk of the surplus agricultural produce of the Táluka is taken inland for disposal.

Omitting Súpá, of which the figures previous to the introduction of the settlement are not available, the revenue of that period compares with that of the Survey as follows :—

	Previous to Survey. Rs.	Survey Settlement. Rs.	Increase per cent.
Kárvár . . .	49,670	1,07,040	—
Ánkola and Kumta .	1,44,930	1,97,600	—
Hunávar . . .	61,870	69,690	—
Yellápur . . .	57,030	92,980	—
Sirsi . . .	75,020	1,05,670	—
Siddápur . . .	74,597	98,284	—
Total .	4,63,117	6,71,264	44·9
(132 out of 162 villages.)			

There were before the Settlement various tenures of land in this Collectorate of a more or less complicated and disputed origin and nature, which the Survey settlement has set aside. As any detailed description of these would be more of antiquarian than practical interest, such a description has been omitted. The general condition of matters connected with the Land Revenue system in force has been noted at the commencement of this chapter.

CONCLUSION.

THE history of the Land Revenue administration of the Bombay Presidency, exclusive of the island of Bombay and Sind, has thus been brought down to the latest date available. It would have been more satisfactory to be able to trace the effects of the Revenue Survey settlements as a whole for their first entire term of thirty years, but many of these, especially in Kánara and in some parts of Gujarát, have only very lately been completed, and many years must consequently elapse before they come under revision. Enough has been written of them to show the general principles on which they have been carried out, and to set forth the improvement they have brought about in the resources of the State and the condition of the people, an improvement which has amply repaid the great expense of the operation during nearly seventy years. The work has been so thoroughly done that, with the most ordinary attention on the part of the Revenue authorities, there need never be any occasion for it to be done over again, or even amended. Unlike other surveys carried out previously in various parts of the country, its traces both in the records of Government and in the field must be permanent, for the boundary marks put up in the latter to distinguish occupancies are clearly shown in the village maps as well, and can therefore be identified at any time and kept in order. The actual possession of each Survey field or recorded share of the same can be traced back step by step by the aid of the Collector's books to the time of the Settlement, a continuous record of invaluable use to the Civil Courts in case of disputes arising in

future years. The advantages of the Survey tenure, as laid down by law, have been sufficiently explained in the course of this work not to require any further description here. They have, moreover, undergone the great test of time, and, as has been amply proved, have come safely out of the ordeal, and the reader can now judge for himself whether the remarks in the Introduction with regard to the beneficent action of the Revenue authorities in the Bombay Presidency have been justified or not.
